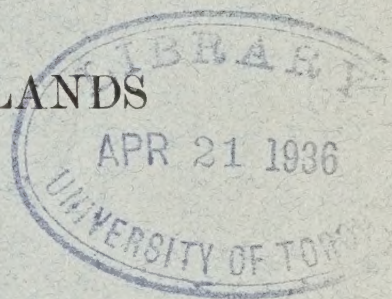


(PROVINCE OF SASKATCHEWAN)

DESCRIPTION OF THE LANDS

COMPRISED WITHIN THE



FORT PITT SECTIONAL MAP

CONSISTING OF

TOWNSHIPS 49 TO 56, RANGES 15 TO 28,
WEST OF THE THIRD MERIDIAN

COMPILED BY J. AURÈLE COTÉ, D.L.S., FROM THE REPORTS OF DOMINION
LAND SURVEYORS AND OTHER REPORTS.

Published by Authority of the Minister of the Interior.

JANUARY, 1912

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DEPARTMENT OF THE INTERIOR.

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NOTICE.

The following descriptions of townships have been prepared from the field notes and reports of the surveyors.

The townships in this pamphlet are placed in ranges, the number of the range being at the top of the page and the number of the township in heavy figures on the left side.



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PROVINCE OF SASKATCHEWAN.

DESCRIPTION OF THE LANDS COMPRISED WITHIN THE FORT PITT SECTIONAL MAP, CONSISTING OF TOWNSHIPS 49 TO 56, RANGES 15 TO 28, WEST OF THE THIRD MERIDIAN.

This district covers the tract of country, within the province of Saskatchewan, lying between the 108th and 110th meridians of longitude and the 53rd and 54th parallels of latitude, and comprising townships 49 to 56, ranges 15 to 28, inclusive, west of the third meridian. Its southern boundary is situated some thirty-five miles from Battleford, while Lloydminster, its chief town, lies directly on its western boundary, which is formed by the 110th meridian of longitude, or the fourth meridian. This line is situated at a distance of 130 miles from the city of Edmonton.

ACCESSIBILITY.

The district may be easily reached by railway, it being crossed at its southwest corner by the main line of the Canadian Northern from Winnipeg. There is also a branch line of the same railway which runs northerly from North Battleford, along the west shore of Jackfish lake, entering the district along the southern boundary, about twelve miles east of the North Saskatchewan river and three miles east of the Turtlelake river, and continuing northerly almost halfway through the district to a settlement called Mervin. Easy means of access are thus afforded to the very heart of this fertile area. There are in addition many trails running in northeasterly and northwesterly directions, chief amongst which may be mentioned those connecting Battleford with almost every settlement and lake of any importance. In the westerly portion of the district there is a trail between Lloydminster and Hewitt Landing, while in the easterly part there are two running from North Battleford to Midnight and Birch lakes.

Railways and Stations.—The main line of the Canadian Northern railway runs through the southwest quarter of the district, across three townships. The most important town on this line within the district is Lloydminster. Other railway stations are situated at Marshall in township 49, range 26, and at Aberfeldy in township 49, range 19. A branch line runs in a northwesterly direction through two townships to Mervin, which is at present the terminal point. The station on this branch is Edam, in township 49, range 19.

Roads and Trails.—Lloydminster is accessible by good trails either from Edmonton or Battleford, this latter trail being much used by English colonists at one time.

1. There is a trail running north from Lloydminster to Hewitt Landing and Fort Pitt. The trail is bridged where it crosses Biggully creek, but is not travelled to any great extent.

2. There is also a trail running from Fort Pitt almost due south which leaves the district in township 49, range 25. It is not much travelled at the present time.

3. The main trail from Fort Pitt to Battleford enters the district in township 49, range 22, continuing in a northwesterly direction to Fort Pitt. It passes through

the settlements of Guestwich and Amfleet, where there are post offices. The trail is a fairly good one.

4. A trail also runs westward from Onion lake to Emmaville. It is bridged over the Red Deer and Little Red Deer rivers, but is little travelled.

5. A good road connects Battleford with Onion lake. It runs in a southeasterly direction from the latter point in township 55, range 28, and leaves the district in township 49, range 19. The road passes through the settlement of Edam, and has very good bridges throughout its course.

6. There are several other trails in the district. Turtle lake is connected to Battleford by a road which runs almost north and south in close proximity to Jackfish lake. This trail is a fairly good one except for the last ten miles to Turtle lake, but is very little travelled. It also branches off into many smaller trails running in a general easterly direction.

7. A small trail runs south from Stony lake across two townships, connecting with the Jackfish Lake trail, and another one from Midnight lake, running southward, joins the main trail from Jackfish lake.

8. An old trail which comes from Jackfish lake, runs into swampy ground in township 49, range 16, and may be followed right up to Birch lake. It is very little travelled and is not at all in good condition. The same remarks apply to the trail from Battleford to Birch lake.

9. The trail from Carlton to Regina passes through the district quite close to Birch lake and joins the Battleford to Birch Lake trail in township 51, range 15

Water Route.—The North Saskatchewan river, which flows through the southwest corner of this tract of country, entering at township 53, range 28, and leaving it at township 49, range 21, was sometimes used before the advent of railway as a means of access. The city of Edmonton is situated on this watercourse, about 130 miles to the west.

Settlers, engineers and surveyors found this water route a very convenient one, as large scows could be easily floated down from Edmonton by taking advantage of the rise of the river. The periods of high water, however, are liable to considerable change from year to year and there is no definite time at which the rise may be expected. One surveyor floated down the river in 1904 from Edmonton to Emmaville, a small settlement on the Englishman river, in nine days, with a large scow of 15 tons capacity, and he met with no accident.

In the early spring the water fed by the swollen creeks, freshets and tributaries rises slightly, and for a short time it is possible to float the scows down in safety. If this relatively short period of high water is not taken advantage of, it is necessary to await the time of annual high water which occurs in July or early in August. At this time of the year the river is liable to rise very rapidly, sometimes several feet in a very few hours. This is due to the warm weather up in the mountains melting the snow rapidly, the water thus formed finding its way very quickly down the steep slopes to the Saskatchewan river below.

Telegraph.—There is a government telegraph line in operation between Battleford and Fort Pitt. The Canadian Northern also have a telegraph line along both their main and branch lines.

GENERAL CHARACTER OF THE COUNTRY.

Soil.—There is a marked difference in physical character between the eastern and western portions of the area comprised in this tract of country.

The western six ranges present, in general, a rough broken aspect, being cut by the valleys of the North Saskatchewan river, Biggully, Stony creek, Red Deer river, and by numerous ravines and small lakes. Notwithstanding its general rough

nature; the country is well adapted to grazing and stock-raising purposes, as it is well wooded and the soil, a black sandy loam on a sandy or clay subsoil, is very fertile. Many areas, which are nearly level or consist of long sloping hillsides, afford excellent land for agricultural purposes.

The eastern eight ranges, are, in general, gently rolling. The soil varies from sandy loam to a rich dark loam on a sandy or clay subsoil. Gravel occurs, but the soil is, nevertheless, very rich and fertile. There are patches of open prairie and patches of land easily cleared of scrub. On the whole, the land is well wooded and clearing will be rather heavy. The entire eastern portion, with a few exceptions, is well adapted to general agriculture. The exceptions are townships 49 in ranges 15 to 22 inclusive, which are broken and in parts marshy, but are nevertheless well adapted to grazing and stock-raising, and townships 53 and 54 in ranges 15 and 16, where the soil is a hard clay with no loam and no alluvial deposits, being thus unsuitable for either farming or ranching.

Climate.—There is a meteorological station at Lloydminster and a few extracts from the official reports of 1909 and 1911 showing the maximum and minimum temperature during the summer months, will give a good idea as to the temperature prevailing throughout the district.

Lloydminster, 1909.			Lloydminster, 1911.		
Month.	Max.	Min.	Month.	Max.	Min.
May	79.5	21.0	May	75.5	6.4
June	78.7	32.3	June	80.7	28.8
July	86.4	36.0	July	81.3	37.1
August	90.8	30.9	August	82.0	29.0
September	82.5	17.8	September	78.8	14.0
Maximum temperature for year 90° .8			Maximum temperature for year 82° .0		
Minimum " " -41 .0			Minimum " " -51 .4		
Rainfall during the year 10" .53			Rainfall during the year 10" .20		
Snowfall " 13 .1			Snowfall " " 19 .7		

Altitudes.—The average altitude of this section of country is about 2,000 feet. The elevation of the North Saskatchewan river at Fort Pitt, at the extreme western part of the district, as given by the Geological Survey report, is about 1,711 feet. The elevation of Birch lake, as obtained from aneroid readings taken by Geological Survey explorers, is about 2,140 feet.

In the northwestern portion of the district the elevation of the country is about 3,000 feet, gradually sloping downwards till it reaches the valley of the North Saskatchewan river.

Minerals.—There are no indications whatever of any minerals of economic value in any part of the district, nor any stone-quarries nor outcrops of stone which might be suitable for building. A few loose boulders, however, are found in small quantities in certain localities.

Game and Fish.—In the northern part of the district large game, consisting of moose, bears, and deer (wapiti), is plentiful, but becomes scarcer as we come southward.

Winged game is found in moderate quantities, consisting of ducks, partridges, sandhill cranes, plovers, and prairie-chickens.

Some furbearing animals, such as muskrats, minks and martens are sometimes seen by the Indians.

Most of the larger lakes and streams are teeming with excellent fish: pickerel, pike (jackfish), and whitefish are there in great quantities.

LAND AND WATER AREAS.

Settlements.—The town of Lloydminster, on the Canadian Northern main line, is situated in the western portion of the district. Though a relatively new place it has already a population of 1,800 people. Marshall and Aberfeldy are two small villages with stations on the same line of railroad. There is a post office in each place. There are besides the above, eighteen settlements with post offices, namely:—Edam, Daysville, McLaren, Fort Pitt, Guestwich, Forest Bank, Miller, Gully, Landrose, Northminster, Rex, Hewitt Landing, Stony Lake, Spruce Bluff, St. Walburg, Emmaville, Amfleet and Onion Lake.

There is also one settlement with no post office, viz., Edova. Fort Pitt is a very old settlement and was important at one time as a Hudson Bay trading station. The ferry, however, was transferred lately to Hewitt Landing.

Onion Lake, situated in the northwest part of the district, is also one of the oldest settlements of that part of the country. It contains a Hudson Bay trading station, a Roman Catholic mission, an Anglican mission and a government telegraph office. The population comprises about 150 people. It is connected with Lloydminster by an excellent wagon trail.

Lands available.—The southern part is very thickly settled, at least four-fifths of the land now open for settlement being situated in the northerly part of the tract. A great many settlers took up homesteads during the past year. The country around Mervin, which is at present the terminal of the branch line of the Canadian Northern railroad, is completely taken up by homesteaders who have come there in the last few years, the facilities of communication afforded by this railway being in no small measure responsible for such a speedy development of the country.

Quite a colony of settlers have also established themselves during the year 1910 along the eastern boundary of the Seekaskootch Indian reserve, in the vicinity of Onion lake.

Indian Reserves.—There are three Indian reserves in the district, namely: the Makao (No. 120) and the Seekaskootch (No. 119) reserves in the western portion thereof, and the Thunder Child reserve in the eastern portion, near Midnight lake. The Seekaskootch embraces an area of 38,400 acres. The population consists of 203 Cree Indians. The Makao has an area of 14,800 acres, but only a small portion of it is in the Fort Pitt district. There are 80 Cree Indians on this reserve.

The Thunder Child reserve is situated 75 miles north of Battleford, and lies south of Brightsand lake. It comprises 13,280 acres of rolling country, through which flows Turtle creek. The soil is a sandy loam with a gravelly subsoil, well adapted to stock-raising and farming. There is also a smaller reserve of 1,280 acres near Turtle lake, occupied by 120 Cree Indians, and a few Saulteux.

Rivers.—The North Saskatchewan river rises in numerous streams, which flow from the watershed range of the Rocky mountains, many of which are fed by glaciers of considerable size. Flowing in a general way to the east and north it leaves the main range of the mountains in latitude $53^{\circ} 14'$, longitude $116^{\circ} 25'$ west, and after a course of from sixty to seventy miles eastwards is joined by Clearwater river just below Rocky Mountain house. From this point to Fort Pitt the river is navigable. It varies from one-sixth to one-third of a mile in width. The current is swift, the average fall being about two feet per mile. The adjoining country

rises within a few miles from the river to an elevation 300 to 600 feet above it. The banks on each side of the river where it flows through the Fort Pitt district, are very rough and broken, and are covered in places with patches of willow scrub and small spruce. These banks rise to a height of from 150 to 300 feet in a distance of half a mile to two miles. The river varies in width from one-eighth to one-third of a mile and in depth from five to twenty feet, according to the time of the year. In the early fall it becomes absolutely unnavigable, sandbars showing up everywhere.

The Red Deer river has its source in township 56, range 24. It discharges the waters of Little Fishing lake and flows southward a distance of about twenty-five miles, to where it joins the North Saskatchewan river in township 52, range 25. This river is from twenty-five to forty feet wide, and varies in depth from two to four feet. The banks on each side are rough and broken and very steep. They rise to a height of 75 feet to 200 feet above the river. The current is fairly swift and in the south part of township 53, range 24, the water could be used in several places for water-power by building dams, but the valley is too wide in the northern portion to develop power by damming. The water is fresh.

The Little Red Deer river is a tributary of the Red Deer river. It rises in township 54, range 23, and flows southerly through a series of three small lakes, joining the Red Deer river in the southern boundary of section 6, township 55, range 24. It is a stream of clear water, fifteen feet wide, two feet deep, and has a swift current.

The Englishman river rises in township 54, range 22, where it runs out of several muskegs and swamps. It then flows southward through the little settlements of St. Walburg and Emmaville, then through Englishman lake, situated in township 51, range 22, and continues on to township 50, range 21, where it enters the North Saskatchewan. The water in the river is good; the width of the stream is from twenty-five to fifty feet and the depth is from two to six feet. The current is from four to six miles per hour. In township 52, range 22, a water-power could be developed by building a dam in section 16.

Turtlelake river is a large stream flowing southward through the central portion of the district. It discharges the waters of several large lakes, the most important of which are Brightsand lake, Turtle lake, and Midnight lake. Streams about forty or fifty feet in width and three to four feet in depth, running three to four miles per hour, flow out of these large lakes and unite at certain points to form the Turtlelake river. The stream running from Midnight lake westward, and joining the main branch of this river in township 52, range 19, is known as the South Branch of the Turtlelake river. The Turtlelake river is a stream 60 to 100 feet in width. The depth is from three to ten feet and the current from two and a half to three miles an hour. No water-powers occur along this river. The water is of good quality.

Creeks.—Pipestone creek is a small stream originating in the Seekaskootch Indian reserve and running into the North Saskatchewan in township 53, range 26. The water is pure and clear and from one to three feet deep, about eight feet wide, with a current running two and a half miles per hour.

Oldman creek flows from Oldman lake in township 54, range 26, and also drains several muskegs in township 53, range 25. It is a small creek with good water and empties into the North Saskatchewan river.

Whitesand creek, a fine spring creek, rises in section 6, township 52, range 23, and flows southward. It is joined by two small spring creeks in section 29, township 51, range 13, flows southeast through a deep gully in which may be seen several hills of white sand, and empties into the North Saskatchewan.

Biggully creek is a small creek flowing southeast from the small lakes and muskegs in township 51, range 27. It runs for a considerable distance before emptying into the North Saskatchewan river. The water is good, the depth is from one

to four feet and the width from eight to ten feet. The current is very sluggish. In places the creek widens out into shallow lakes and in years of drought it is liable to dry up, leaving only a series of small pools to mark its course. It lies in a small valley varying from one-half to one mile in width; its banks are steep and stand from 25 to 80 feet above the level of the lake.

Losthorse creek rises in section 25, township 29, range 15, and flows in a southerly direction. It varies from 10 to 25 feet in width and from two to four feet in depth, with a current averaging two and one-half miles an hour. The water is good, but no water-powers are available along this creek.

Jackfish creek rises in township 50, range 17, and runs out of a small lake known as Sibbald lake. It flows through two townships and out of the district. It is a creek of fresh water, from 25 to 50 feet in width and from one to six feet in depth. It runs from two to six miles an hour and is not liable to overflow, except in very low hay sloughs.

Lakes.—Brightsand lake is a large, beautiful clear-water lake, situated in township 53, range 20, and occupying more than one-third of the township. It extends about two miles north of the township. The water is fresh and good, and the bottom is sandy and stony.

Turtle lake lies in townships 52 and 53, range 19, and in township 53, range 18. It is about seven miles long and three miles across at the widest part. It occupies five sections of township 53, range 19, and two sections of township 52, range 19. The water is fresh.

Midnight lake is situated in township 52, range 16, occupying ten sections. The water is slightly brackish, but is otherwise good. The south branch of the Turtlelake river discharges the waters of this lake. The western shore runs into township 52, range 17, where it gradually develops into an extensive muskeg.

Birch lake occupies practically all of the southern two tiers of sections in township 52, range 15, and the northern tier of sections in township 51, range 15, and also two sections in township 52, range 16. The water is good, although slightly brackish. The shores are ill-defined, broken and marshy for the most part, with many points sticking out into the lake. It is plentifully stocked with pike, pickerel and whitefish. The lake drains practically all of township 52, range 15, the land sloping generally southward.

Long lake covers five sections in the northwest of township 52, range 15, and three sections in the northeast of township 52, range 16. It is a large sheet of clear, cold water. The shores are flat and marshy. Its waters discharge into the South Branch of the Turtlelake river.

In nearly every township of this district there are several small lakes and large ponds, in which the water is generally fresh; in some cases it is slightly alkaline and brackish. There are also a great many small creeks which flow into the various rivers. These creeks flow from the small lakes and drain several muskegs in their course.

Hay Meadows and Marshes.—Hay is found in almost every township. In many places it is abundant and of excellent quality for stock. Even in those townships where hay is not found, there is a growth of upland grass which in many places is luxuriant. It is this abundant growth of hay and grass, taken in connection with the permanent supply of good water and the shelter afforded by the bush, that makes the district an ideal one for stock-raising.

Woods and Timber.—Small poplar is found everywhere and is by far the most common variety of wood. It grows generally from two to ten inches in diameter. It supplies an unlimited source of fuel, the larger timber being used for fencing and building purposes. There is generally a thick underbrush of scrub of no value.

Other varieties of timber are found in small quantities, these being spruce and tamarack up to twelve inches in diameter, suitable for timber; jackpine which grows principally in the eastern part of the district, and is suitable for fuel, while a little of it might be used for lumber; and aspen, birch, balm of Gilead and cottonwood which are interspersed scantily throughout the district.

EARLY EXPLORATIONS.

Fort Pitt, from which the district takes its name, was at one time an important post of the Hudson Bay Company, but with the advent of settlement to the south and the transfer of fur-trading operations to more northern points, it is of little use to-day for that purpose.

Captain Palliser makes mention of this part of the country in the report of his explorations as far back as 1859, Fort Pitt being at that time fairly well settled. The numerous trails that are found even to this day in a fairly good state of preservation, indicate very clearly that there was considerable travelling at one time throughout this district, which was situated on the main road followed by early traders from Winnipeg to Edmonton, by way of the Saskatchewan river.

DESCRIPTION OF THE TOWNSHIPS FROM THE SURVEYORS' REPORTS.

TOWNSHIPS WEST OF THE THIRD MERIDIAN.

RANGE 15.

This township is reached without any difficulty from the Battleford-Birch
49. Lake trail which passes through township 49, range 16, being from one-half to three miles west of the line between the ranges. The trail is a good one and, although there are two creeks to be crossed, makes the township easily accessible. The soil throughout the township is more or less uniform, consisting of two to three inches of black loam over a subsoil varying from sandy clay to clay, with gravel in some places. Stones and boulders occur to a small extent. Except the southwestern corner of the township the surface is hilly, being much broken by coulées. The northern and western portions of the township are covered with scrub poplar and willow and the western portion with clumps of poplar varying in diameter from four to eight inches. The southeastern portion is more open, although more or less scrub occurs. While no large hay sloughs occur hay could be cut around nearly all the small lakes or ponds throughout the township. Grass is abundant and of good quality. Several ponds, marshes and small lakes occur in the northern and central portions of the township. Losthorse creek rises in section 25 and flows generally southwest, leaving the township in section 4. This with the exception of a small creek in section 5 constitutes the only outlet. Losthorse creek varies from ten to twenty-five feet in width, and from two to four feet in depth, with a current averaging about two and a half miles per hour. The water throughout the township is excellent and the supply is permanent. No water-power is available. Besides some marshes adjacent to the creek no land would be flooded. General climatic conditions were favourable, but frosts occur early in the year. Fuel, consisting of poplar, is abundant. No coal nor lignite veins economically valuable, minerals nor stone in place were discovered. Sand-hill cranes, ducks of various kinds and prairie-chickens were common. Indications of moose and deer were noticed, although no large game was seen.—*H. S. Holcroft, D.L.S., 1907.*

The old Carlton-Regina trail crosses the northeastern portion of this town-
50. ship entering section 24 and leaving near the northeast corner of section 34. This trail joins the Battleford-Birch Lake trail in Township 51, range 15. From Battleford the township is easily reached by the trail to Birch lake which passes within half a mile of the southwest corner and enters section 31 near the northwest corner of the township. Both of these trails are in good condition and make the township easily accessible. The soil is rather uniform, varying from two to eight inches of black or sandy loam with a subsoil varying from clay to sandy clay. Stones and gravel occur slightly, but are by no means troublesome. The surface is generally gently rolling, but the northeast corner is rather heavy. The surface is covered with scrub poplar and willow throughout, while all but the southeast portion is covered with a more or less heavy growth of poplar, ranging from five to twelve inches and averaging about six inches in diameter. Several hay sloughs occur, notably in sections 34, 27, 29, 20, and 17. Grass is abundant. Excellent water occurs throughout the township; several small lakes and streams making the supply permanent. Outside of the sloughs and marshes mentioned no land is liable to flooding. No water-powers exist. Stone in the shape of boulders suitable for building purposes, occurs to a small extent, but no stone in place nor minerals of

TOWNSHIPS WEST OF THE THIRD MERIDIAN.

RANGE 15.

economic value were discovered. Fuel is abundant, consisting of dry poplar. The general climatic indications were favourable but summer frosts are more or less frequent. Tracks of moose and deer were common, although no animals were actually seen. Ducks, a few geese, sand-hill cranes and some few prairie-chickens were noticed.—*H. S. Holcroft, D.L.S., 1907.*

The trail from Battleford to Birch lake enters this township through sections 6, 7, 17 and 20. In section 20 it branches, one branch going westerly around Birch lake, and the other going easterly, passing through sections 21, 22, 23, 24 and 25. These trails are moderately good and make the township easily accessible. By trail, the south end of this township is about fifty miles northerly from the town of North Battleford. The soil is a light covering of black loam from about two to six inches deep on a top soil of sandy loam or clay with usually a subsoil of clay or clay loam. This soil should produce excellent crops of the usual products of the soil in this province. Practically the whole of the surface is covered with a growth of varying density of scrub poplar and willow. Sections 1 to 12, inclusive, and sections 17, 18, 19 and 30 are more lightly covered than the remainder of the township. Bluffs of poplar and balm of Gilead from three to ten inches in diameter occur frequently in the above mentioned sections. The whole of the north-eastern portion is densely covered with scrub, moderate sized poplar and balm of Gilead. Some small open spaces occur in sections 1, 2, 3, 10, 11 and 12. An occasional small spruce was seen in the eastern part of the township. The surface is nearly level in the western portion, rolling in the middle and somewhat hilly in the eastern portion. A small amount of hay could be cut around some sloughs in the southwestern portion of the township. The rest of the township contains little hay except around the edges of very small sloughs scattered throughout the township. A large hay meadow occurs on the boundary between sections 12 and 13. Birch lake occupies a great portion of the northern part of the township. This lake presents a very rough outline, having several large points extending out into the lake and several deep bays extending into the land. In sections 30, 29 and 20 the shores are not well defined, being marshy. Several small lakes and sloughs occur throughout the township. Broughton lake, in sections 13, 14 and 24 is a long and very narrow lake lying between high banks. Though very narrow, averaging only about one-eighth of a mile in width, it is very deep and contains a large quantity of fish. Birch lake is very plentifully stocked with pike and pickerel, and I believe whitefish also. All the water is fresh and is sufficient and permanent. No power could be generated from falls or rapids. A heavy frost occurred on the 12th of August, but apparently did no harm. This season was very wet and somewhat cold, but the climatic conditions seemed in general to be favourable. Fuel, in the shape of poplar and balm of Gilead, is plentiful throughout all the township. No coal nor lignite veins were seen. Boulders and stones occur in small numbers on the surface. Throughout the township no stone in place nor any economically valuable minerals were encountered. Game is rather scarce, a few ducks and an occasional prairie-chicken were seen, also some traces of deer, bears and muskrats. Badgers, coyotes and gophers were scarce.—*H. S. Holcroft, D.L.S., 1907.*

The western portion of this township is reached without any considerable difficulty by the trail from Battleford to Birch lake, a branch of which passes round the west of Birch lake, entering the township in section 7. Another branch of the same trail enters the township in section 18. In wet weather both these trails are very difficult to travel, as the first follows the west and north shores of

TOWNSHIPS WEST OF THE THIRD MERIDIAN.

RANGE 15.

Birch lake, while the other passes in close proximity to the southern shore of Long lake, the shores of both lakes in these places being marshy. The soil throughout the township is very uniform and in most places of first-class quality, consisting of from two to ten inches of black or sandy loam with a subsoil varying from sandy clay to clay. Pebbles and stones occur but seldom, and never in such quantities as to hinder agricultural operations. The surface is gently rolling, there being two general slopes, one towards the northwest draining into Long lake. Spruce is found scattered all over the township and around Birch lake. While much of the larger timber, especially that adjacent to Birch lake has been cut, there still remains a considerable quantity of good timber, averaging about twelve inches in diameter, although some trees thirty inches in diameter were noticed. A few tamarack occur in the northeastern portion of the township. Poplar and balm of Gilead occur uniformly throughout the township, having a maximum diameter of about fifteen inches and averaging about eight inches. Jackpine in small quantities occurs on nearly all the ridges in the central and northern parts of the township, having a maximum diameter of twenty-two inches, but averaging about ten inches. Some poplar and willow occur all over the township. The marshes along the north shore of Birch lake and all around the shores of Long lake would supply an immense quantity of fine hay, especially sections 17 and 20, although in a wet season much of this would be difficult to cut. A few meadows scattered throughout the township would slightly augment the supply of hay. The water throughout the township is excellent, due no doubt, to the fact that the moss and marshes form excellent reservoirs, keeping the creeks full of pure, cold water. Several of these flow south into Birch lake. This lake occupies practically all of the southern two tiers of sections and extends also into township 52, range 16. The water is good. The shore presents a very broken appearance and is generally ill-defined, being marshy for the most part and often separated from a lagoon or marsh by a thin fringe of boulders. Long lake, which occupies practically all of sections 19, 30, 31 and parts of sections 29 and 32, is a fine sheet of clear, cold water, extending far to the north. A small lake occurs on the east outline in sections 24 and 25. A few small lakes and sloughs scattered throughout the township still further increase the water supply. No water-powers occur. Although the summer of 1907 was extraordinarily wet the general climatic indications were favourable, the nights being cool and the days moderately warm. Frosts occurred on August 1st, and 2nd, but apparently no harm resulted. Fuel is plentiful throughout the township. No coal, lignite nor minerals of economic importance were discovered. Stone suitable for building purposes in the shape of boulders and irregular pieces of rock occurs in several places on the shores of Birch lake, but no stone in place exists. Game, while not abundant, is frequently found. A moose cow and calf were seen on Birch lake. Several varieties of duck, a few ruffed grouse, some pelicans, sand-hill cranes and muskrats were noticed. Traces of deer and bears were observed. Both Long and Birch lakes contain an immense quantity of fish, including pike, pickerel, suckers and whitefish.—*H. S. Holcroft, D.L.S., 1907.*

(*North outline.*)—The whole of section 31 lies in the lake, the eastern shore of which intersects the base line at a point 18 chains east of the northeast corner of section 31. Section 32 is swampy and stony, covered in places with small spruce, some scrub, willows and a few poplar. Section 33 is very stony and undulating, with a general slope towards the east. A forest of poplar, 8 inches in diameter; spruce, 10 inches in diameter; birch, 8 inches in diameter; and jackpine, 12 inches in diameter, growing straight to a length of 40 feet, covers the eastern half

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of this section and the whole of sections 34, 35 and 36. Here the country becomes more hilly, and in places boggy. The underbrush in this forest is very heavy, consisting of large alders and thick willow. The wagon roads in this heavily timbered country, with the exception of the one cut by ourselves, have not been extended to any distance beyond the shanties. One Indian pack trail crosses the line about 10 chains west of the quarter section post on the north boundary of section 36. The soil is a black and sandy loam varying from 4 to 10 inches in depth, with a subsoil of clay and stones.—*A. Saint Cyr, D.L.S., 1903.*

We reached this township by cutting a trail from township 54, range 16, **53.** to Long lake, which we crossed on a raft, walking our horses around the north end of the lake to the east side where we had our camp. The surface is fairly level, with no hills of any account, and is covered with small timber and scrub. None of the timber is of any commercial value, but could be used for small buildings and fencing. The township is generally dry with a few muskegs in some parts, but no hay land. The soil is generally hard clay, which would not be favourable for agriculture and the absence of hay land makes it unsuitable for ranching. Long lake extends northerly into this township over four miles and is about half a mile wide, but not very deep. It does not appear to contain any fish. There are a few sloughs but no running water, except a very small creek running into Long lake through section 21. There is no trace of any rocks nor minerals of any kind to be seen anywhere. From indications it would seem that there is danger of summer frosts, as there have already been frosts as early as July 14, which would be quite injurious to crops.—*James Warren, D.L.S., 1910.*

(*North outline.*)—The surface of this township is gently rolling. The soil **56.** consists of black loam to a depth of about four inches on a subsoil of sand and clay. It is timbered with spruce, poplar and jackpine, up to about ten inches in diameter, and has numerous willow sloughs and small hay meadows. Several small creeks flow north across the line in this township. The largest of these creeks crosses the north boundary of section 33. This stream is about thirty feet wide and has an average depth of about three feet and a fairly rapid current. In the bottom lands along the banks of this stream are some good hay meadows. Moose are plentiful and a few partridges and prairie-chickens were also seen. No water-powers, stone-quarries nor minerals of economic value were noted in this township.—*Wm. Christie, D.L.S., 1909.*

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From Battleford, Saskatchewan, we reached the township by going by ferry **49.** across Saskatchewan river, thence northwesterly by Onion Lake trail for about 15 miles, thence northward by Jackfish trail, skirting the east side of Jackfish lake for another 15 miles, thence northwestward by Birch Lake trail, which, about half way across township 48, range 16, crosses swampy land and is difficult to follow, thence after a sharp ascent of 300 feet to the top of a plateau where the trail becomes better and leads into section 4, thence northeasterly across this township. The trail is said to continue on to Birch lake about 15 miles to the northeast. In the northern sections the soil is sandy, gravelly clay. In the central and southern sections, loam and rich clay. It appears most suitable for stock-raising, but if cleared and drained it would probably yield good cereal crops in the southern portion. The township is very undulating with many marshes and many

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deep ravines, and is nearly covered with small poplar and a dense growth of underbrush and scrub. Probably 80 per cent of this township is so covered. There is no commercial timber to speak of; a few poplar and cottonwood trees in the northern part would occasionally measure 12 inches in diameter. As a rule the large poplar would average from 5 to 7 inches in diameter. Hay grows freely in the numerous marshes and also shows well on the open sides of the ravines, but it is generally of a coarse nature. Water is plentiful, fresh and fairly good being chiefly found in ponds and small lakes. The only creek that appears likely to flow during the summer months is the one on sections 7, 17, and 18. The land is not likely to be flooded. There are no falls nor rapids, nor is there volume enough in any stream from which power could be obtained. From the 15th to the 30th of May it was very windy—chiefly from the north, northeast and northwest—and warm days alternated with blizzards of snow and cold, raw weather. June was dry, cloudy and moderately warm, and there were frequent summer frosts during the night. Poplar is the only wood available for fuel. This is also apparently obtained in quantities from townships further north—near Birch lake. There are no indications of coal and no stone-quarries nor minerals. Game—ducks, prairie fowl and plovers. No deer were seen.—*Sydney A. Roberts, D.L.S., 1903.*

The Birch Lake trail runs through the eastern part of the township. It is a
50. poor trail and but little travelled. The soil is generally a rich dark loam, rather stony and is suitable for grain and vegetables. The surface is slightly undulating with large flats of marshy land inclined to be muskeg. It is almost entirely covered with brush and scrub, with scrubby poplar up to 18 inches in diameter scattered about; also a quantity of fallen timber, killed by forest fires in former years. The only timber is poplar and a little spruce, varying in size up to 18 inches in diameter. It is distributed in clumps over the township. Quite a quantity of good hay could be got in dry seasons in the marshes that are this year under water. The water is fresh and apparently permanent in the small ponds and sloughs throughout the township. Jackfish creek runs along near the north boundary of the township. This year it is a rapid stream about 25 links wide and a foot deep. A good deal of the low land adjoining sloughs is flooded this year with a foot or two of water through the surrounding brush. There are no water-powers in the township. No signs of summer frosts were observed. The first ice appeared on September 4th. Heavy rains fell all summer. Poplar is the only fuel; it is scattered all over the township. There are no stone-quarries and no minerals. The game consists of a few deer and ducks.—*T. S. Gore, D.L.S., 1903.*

The trail from Battleford to Birch lake passes through sections 25 and 35
51. of this township, and being generally in good condition forms the best route for reaching it. There are some hills to be crossed, but they present no special difficulty. One creek, which has to be crossed, might cause trouble in a wet season. The soil consists of a thin layer of black mould with a subsoil generally of clay loam or sandy clay. In many places stones occur but not so thickly as to interfere with agricultural operations. About half of the township has first-class soil, the remainder being second class. Practically the whole surface is covered with either light or heavy scrub poplar and willow. A great many small open spaces occur, especially in the northwest portion of the township, and also near the shores of Lake MacLeod. About eighteen per cent of the surface is water, ten per cent open, and the remainder scrub poplar and willow interspersed with scattered poplar and balm of Gilead averaging eight inches in diameter. Sections 2, 3, 4, 5 and 6 are rolling,

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while the remainder is gently rolling country. Poplar and balm of Gilead averaging about eight inches are scattered all over the township. A small amount of spruce is found near the small lakes in sections 5 and 6. These trees average about eight or nine inches in diameter, the largest being about fourteen inches. Altogether about 100,000 feet of lumber could be cut. Grass grows luxuriantly in all the open places throughout the township.

Scattered over the township are a few very small hay meadows. The upland grass should make good hay. The township is well supplied with water. Birch lake occupies about half of sections 25 and 36 and along the south outline of the township is a string of lakes connected by small creeks. Several sloughs are to be found throughout the township, all of which contain good drinking water. Lake MacLeod, a rather shallow lake of 2,000 acres in area, occupies parts of sections 10, 11, 14, 15, 16, 22 and 23. The water is slightly brackish, the supply being sufficient and permanent. No land is liable to be flooded to any serious extent. The small streams along the south outline average about eight feet wide and six inches deep with an average current of three miles an hour. No water-power could be generated. The climate was cool, the days being moderately warm. Considerable rain was experienced. No summer frosts occurred. Fuel, mostly poplar, can readily be procured throughout the township, but no coal nor lignite veins were seen. No stone in place was observed, although loose stones for building purposes are abundant. No minerals of economic value were found. Game seemed to be rather scarce as the Indians have for a long time made this district their hunting ground. An occasional prairie-chicken or partridge was seen, while ducks of various kinds were very plentiful. Tracks of red deer and moose were noticed. Rabbits and other small game did not appear to exist. Elk (Wapiti) had evidently lived here formerly, but no recent traces of them were noticed. Birch lake and the series of small lakes mentioned contain an enormous quantity of fish, those noticed being jackfish (pike), whitefish, suckers and pickerel (dore).—*H. S. Holcroft, D.L.S., 1907.*

(*East and west outlines.*)—On the northeast corner Birch lake occupies about 700 acres, and is the only large body of water touching this township. Birch lake extends far to the northeast into range 15 and covers probably 15,000 acres. Along the eastern boundary the land is rolling, with numerous ponds and sloughs. There is much good arable land and many large patches of scrub and small poplar, not much building timber, but plenty of fuel for a long time to come. The northern part of the township is flat and broken by marshes and sloughs. To the southwest are beautiful prairie slopes, with a few clumps of poplar and some patches of light scrub. Jackfish creek drains the southern side of this township, which may be considered to be about second-class for agricultural purposes.—*J. J. Dalton, D.T.S., 1903.*

The township is reached without difficulty by means of the Battleford-Birch
52. Lake trail, which enters the township from the southeast in section 2. The soil consists of from three to seven inches of black loam with a subsoil varying from sandy clay to sandy loam. Stones and small boulders occur in several parts, but are not of sufficient size or quantity to hinder agricultural operations. The southern part of the township is covered with clumps of poplar and willow scrub, but towards Birch lake, which lies in the southeastern part of the township, these become more dense and much heavier. To the east and north of Midnight lake which occupies a large portion of the western part of the township some spruce and a few tamarack occur. Although much of this has already been cut there are perhaps fifty or sixty thousand feet of lumber still standing, the trees averag-

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ing eight inches in diameter. Between Midnight lake and Long lake, which occupies the northeast corner of the township, the country is gently rolling and covered with poplar and balm of Gilead averaging six inches in diameter, and dense scrub and underbrush. Thus, except the southern part, the township is heavily wooded and fuel, consequently, abundant. Excellent hay meadows occur in the south and, in fact, grass is everywhere abundant. A large hay slough occurs to the west of Long lake. The southwestern part of the township is level, the remainder being gently rolling. Three large lakes enter the township on the west. Midnight lake occupies nearly all of sections 7, 18, 19, 30, 17, 20, 29, 28, 21 and 22. The water, while slightly brackish, is not at all bad. Several streams enter the lake, the largest, formed by the union of creeks from Birch and Long lakes, is about ten feet wide, and from two to four feet deep with a current of two miles per hour. Long lake lies in the northeast occupying sections 36, 25 and 24. The water is clear and the shores sandy. Birch lake, although a very large body of water, occupies only sections 1 and 12 of this township. The water is good although not so clear as that of Long lake, the shores being more marshy. No water-power exists. The days are warm and the nights are cool but so far (July) no summer frosts have occurred. No coal nor lignite is known to occur, nor was any stone in place found. While deer, bears and moose undoubtedly exist, the only game seen consisted of ducks, which were exceedingly abundant. The lakes, especially Birch and Long lakes, contain an abundance of fish. The two southern tiers of sections are reserved for Indian lands and are exceedingly well adapted to ranching or farming. Several itinerant bands of Indians of a rather fine type were met with around the lakes. One rancher has done considerable work to the south of Midnight lake and reports it as an ideal ranching district, the stock finding ample shelter amongst the dense clumps of scrub, and hay being everywhere abundant.—*H. S. Holcroft, D.L.S., 1907.*

(*East and west outlines.*)—The northeast corner of this township is covered by what is locally known as Long lake, which extends several miles to the north. On the southeast, several sections are broken by Birch lake and a deep marsh from it. Midnight lake also covers several sections in the southwest quarter. Both Birch lake and Long lake have good streams, running from them into Midnight lake, which are about fifty links wide and two feet deep. The land is generally covered with scrub, much of which is very dense. Hay and grass are of inferior quality and not abundant. The timber around Midnight lake is used by the settlers at Jackfish for building purposes; the spruce is large and abundant but not sufficiently so for timber limits. There is nothing in this township to make it desirable for any special purpose.—*J. J. Dalton, D.T.S. 1903.*

This township can be reached by a trail which was formerly used as a pack-trail from North Battleford and which runs northerly between Midnight lake and Long lake. It was recut so as to make a fairly good wagon road into the township. The surface is fairly level and covered with thick underwood and small timber, none of which is of any commercial value except for small buildings and fencing. There is no hay land, only a little grass around some sloughs in parts of the township. The soil is chiefly a hard clay, with very little alluvial soil, only a depth of two or three inches, and is therefore unsuitable for agriculture. Water can easily be obtained by digging and is fairly good, with no alkali in it. Game is entirely wanting, there being no lakes for ducks or other water-fowl. There appears to be danger from early and summer frosts as there have been frosts already as early as June 18, which would be quite injurious to crops and early vegetables.—*James Warren, D.L.S., 1910.*

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This township can be reached by a trail which runs between Midnight lake and Long lake. It was formerly an old pack-trail running northerly and was opened up by our party. The surface is fairly level and is covered with small timber and scrub, with a few sloughs, which have very little hay land. The timber is small, none of it being of any commercial value, but it could be used for small buildings and fencing. The soil is chiefly hard clay with very little alluvial soil, not more than two or three inches deep at any place, and therefore would not be favourable for agricultural purposes. On account of the small quantity of grass it would not be suitable for ranching. There are no rocks nor any signs of coal or other mineral deposits. Water can easily be got by digging and is of a fairly good quality, but there are no streams of any kind in the township. There have been some late frosts this season, and the probabilities are that there would be early frosts in the fall.—*James Warren, D.L.S., 1910.*

(*North outline*).—The surface of section 31 is rolling and heavily timbered with poplar up to ten inches, and spruce up to twenty-four inches in diameter, with a few birch. The soil in this section consists of a few inches of black loam over a sandy subsoil. A large muskeg occupies the whole of section 32 and part of section 33. Separating this muskeg from another large one in sections 34 and 35, is a ridge of heavy poplar and spruce. East of this second muskeg the surface is rolling and covered with poplar, spruce and jackpine up to twelve inches in diameter, with a few patches of *brulé*. The soil in these sections is sand and clay with practically no loam nor leaf mould on the surface. A number of small creeks flow north across the line in this township. Moose are plentiful; one timber wolf and a few partridges were seen by a member of the party in this township. No water-powers, stone-quarries nor minerals were noticed.—*Wm. Christie, D.L.S., 1908.*

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From Battleford, Saskatchewan, we went by ferry across the Saskatchewan river, and then along the Onion Lake trail for some 15 miles; from here we branched off northeastwardly to Jackfish, and followed the trail leading round the east side of Jackfish lake, whence a trail runs northeasterly for three or four miles to the eastern side of this township to Birch lake. There is also a trail running from Jackfish northeasterly and northerly for about four miles to the western side of this township, and then to Midnight lake. The bridge across Jackfish creek is unsafe for loaded wagons. The soil is chiefly a light gravelly sandy clay. In the southwest corner there is swampy low-lying land with black sandy loam. The township is apparently suitable for stock-raising, being very undulating, much broken by hills and ravines and about 70 per cent covered with scrub and young poplar, excepting in the southwest corner where the low-lying land is chiefly open and flat. There is no commercial timber to speak of. There are a few spruce up to 15 inches in diameter, a few poplar and cottonwood up to 10 inches in diameter in one of the ravines, otherwise the trees are all small poplar averaging from two to five inches. Wild hay grows freely in the swamps, but the general average is of a coarse nature. Water is plentiful, fresh and good, excepting in the southwest corner where a few ponds are impregnated with alkali. The larger swamps had ponds of good water in them. Jackfish creek, one chain in width, about six feet in depth, carries a good volume of sweet water and flows throughout the year, but the stream is sluggish and the land in its vicinity is liable to be flooded. There is so little fall in this creek

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(the only one of any size) that I should judge it would be difficult to obtain any power from it. The weather was very dry in June, but numerous heavy hail and thunderstorms came in July, with copious rain. There were several summer frosts in July. There is no coal; only small poplar and cottonwood; fuel of somewhat large poplar is obtained from townships further north. No stone-quarries nor minerals were observed. One small band of red deer, probably wapiti, was seen in July. There were plenty of ducks, plovers, and a few prairie fowl. From information it would appear that moose are occasionally shot by the Indians, and rabbits are snared. Remarkably good vegetables were found growing in Louis Bourrit's garden in section 8, and he apparently had no difficulty in growing oats and roots in the bottom lands near his house.—*Sydney A. Roberts, D.L.S., 1903.*

The trail from Jackfish settlement to Midnight lake runs through this township from south to north. It is a good road except in wet seasons, when it crosses a good many boggy places. The soil is generally a good clay loam and is suitable for any ordinary products of the country. It is rather stony, however. The surface is all covered with poplar and willow scrub, and in many places poplar up to 10 inches in diameter. It is high and rather flat land, very soft and wet on the surface and broken on the west side of the township by ravines running into Jackfish creek. There is a large amount of fallen timber caused by fires. The only timber, except a little spruce in some of the ravines, is small poplar which is scattered all over the township. There is no hay land, though the grass is long and thick; it is interspersed with clumps of willow. The water in the sloughs and ponds is fresh but in dry seasons would be very scarce. Jackfish creek runs through the northern and western parts of the township. This year it is about 25 links wide and from 2 to 3 feet deep and runs three or four miles per hour. There is said to be very little water in it after a few dry seasons. It contains good fresh water. There are no water-powers in the township. The climate is variable, very wet this year and cool, but with no indications of summer frosts. The only fuel is poplar, scattered about the township. There are no stone-quarries and no minerals. There was very little game seen, but there are a few deer.—*T. S. Gore, D.L.S., 1903.*

Turtle Lake trail northward from Jackfish lake runs within a few miles of this township and is a fairly good road in dry weather. The soil is principally clay and black loam and is suitable for mixed farming. The surface is generally covered with poplar and willow scrub, though there are some stretches of open prairie in the eastern half of the township. The timber is poplar up to about 10 inches in diameter which is scattered in clumps through the scrub all over the township. It is suitable only for fuel. There is a fair amount of good hay scattered about in sloughs and adjoining Maiden lake. The water in ponds and sloughs is fresh and apparently permanent. Maiden lake on the north boundary of the township is a shallow, marshy lake with fresh water; the outlet of it is through marshy land northward into the south branch of Turtlelake river. There are no water-powers. There have been some slight summer frosts this year. The only fuel is poplar scattered about the township. There are no stone-quarries and no minerals. Very little game was seen, only a few ducks.—*T. S. Gore, D.L.S., 1904.*

(*North and east outlines.*)—This township is altogether different in its nature from the one to the north of it. It is generally rolling prairie with numerous bluffs of poplar and patches of scrub and is suitable for general farming. Poplar is abundant for fuel and building timber and can be found readily. Maiden lake is the only body of water of any extent and occupies about fourteen hundred acres of sections 33, 34, 27 and 28. The northern part is broken largely with

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sloughs, but the south and southeastern parts with their beautiful slopes, occasional small ravines, excellent black loamy soil and varied subsoil are especially inviting for a person of agricultural tastes. This is altogether an agricultural township. Hay may be procured along the sloughs in the northern part of the township.—*J. J. Dalton, D.T.S., 1903.*

This township may be reached by the Stony Lake trail, which branches off
52. the Turtle Lake trail at Louis Nault's ranch in township 51, range 18. The trail is but little travelled, but is passable in dry weather. The soil is generally a dark loam, gravel and clay, and is suitable for mixed farming. The surface is mostly covered with scrub and timber, but through the middle and southern parts there are large flats and swamps that are partly open. There is spruce and poplar up to 15 inches in diameter in patches, principally in the northern part of the township. It is suitable for building, but very little would do for lumbering. There is a quantity of rather inferior quality of hay all through the south half of the township. The large swamp in sections 15, 16 and 10, which this year is too deep to wade, in drier seasons would afford a large amount of good hay. The water is fresh but dark. The east boundary runs along the marsh on the west side of Midnight lake, and this lake, which is shallow and marshy, empties through the south branch of Turtle river into another lake on the west side of the township. The river where it is not spread out in the marsh, is about $1\frac{1}{2}$ chains wide, from three to four feet deep and runs two or three miles per hour. There are no water-powers. Poplar is the only fuel, and is found all over the township. There is rather more summer frost than in the open country. There are no minerals and no rock exposures. Ducks and deer are the only game.—*T. S. Gore, D.L.S., 1904.*

(*East and south outlines.*)—The western boundary of this township is broken by a body of water known locally as Stony lake, which covers part of sections 18 and 19, destroying greatly the western halves of these sections. On the southeast is Midnight lake which with a marsh occupies about five miles of the eastern boundary. This lake extends nearly to the western boundary, but is finally drained by the southern branch of Turtlelake river into Stony lake. Maiden lake cuts into the south boundary for about one and three-quarter miles. The northern part of the township consists largely of ridges and muskegs with a few ponds and sloughs. A great area is covered with dense thickets of small poplar. There are several spruce bluffs and a few jackpine in the northeastern corner of the township. Hay may be procured in the vicinity of the lakes, but nowhere else in quantity.—*J. J. Dalton, D.L.S., 1903.*

North Battleford, about sixty-five miles distant, was the nearest railway
53. station, and the most direct road was the trail passing east of Jackfish lake, and running north to Stony lake. We left the trail near a ranch on section 15, township 52, range 17. From this point an Indian wagon trail leads to the southwest corner of section 4, where we established our first survey camp, moving north as the work progressed, partly by this trail and partly by a new trail which we opened. The surface is gently rolling, the south part sloping south from the middle of the township, and the remainder sloping north. The soil which is mostly black or sandy loam of medium thickness, is well adapted to farming. Small poplar and willow brush with a few bluffs of average size poplar cover the southwest half, while the northeast half contains a large area of jackpine up to eighteen inches in diameter. Spruce up to nine inches in diameter grows in the swamps in the northern sections. Hay sloughs are scarce and small. Water was good wherever found, but scarce in the latter part of the summer. There are no water-powers and no minerals.

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There was no frost this summer to damage the crops. Fuel will be scarce in the south sections, but there is a large supply of it in the northern part. Indians hunt moose in this country. Lynx, minks and muskrats are the principal fur-bearing animals of this region.—*Geo. P. Roy, D.L.S., 1910.*

The road to Lake Prairie skirts the east outline of this township, but we
54. moved into it by opening a wagon road from our last camp in township 53. To reach this camp we had followed the Stony Lake trail as far as a ranch, situated four miles south of township 53, range 17, from which we moved north by stages as the work progressed. The soil is generally a fair layer of black or sandy loam over a clay or sandy clay subsoil, sand and stones being found in the southern sections, but the stones lay in patches leaving large areas free from them. The surface is gently rolling with a slope towards the north. It is a country of continuous woods with large bluffs of poplar, jackpine and spruce, six to twelve inches in diameter, jackpine predominating. The intervening spaces are covered with small jackpine, poplar, spruce and willow. Jackpine is the prevailing timber in the southeast part, which is mostly dry land, while spruce, ranging from six to fifteen inches in diameter, grows in the numerous swamps, which occupy the northwest part. This half of the township forms part of the chain of sloughs, swamps and muskegs which are drained by Turtle lake. Water is good everywhere. No stone-quarries nor evidence of minerals were seen. The climate is good, most of the crops in the neighbouring country having matured without any damage from frosts. Wood fuel will be plentiful for years although, lately, fires have killed most of it in the southern part. Numerous tracks of moose were seen all over the township, and partridges, ducks and prairie-chickens abound. Muskrats, minks, lynx, and a few martens are the fur-bearing animals of the country.—*Geo. P. Roy, D.L.S., 1910.*

This township is reached from the west by a wagon road between Horseneck
55. lake and Turtle lake, which we crossed on the ice in a northeasterly direction to the mouth of the creek flowing into it. This creek we followed for a mile and a half, and leaving it where it narrowed, we climbed the north bank, and travelled along it to the southeast quarter of section 17 where we camped. But the main road to this township, in fact the only one coming directly to it is the road from Battleford leading to Lake Prairie. As far as township 53 this road is in good condition, but beyond that, bare corduroy in the muskegs with steep inclines up and down ridges makes travel over it very rough. Besides a few hay sloughs there are no open places in this township. The surface is rolling with very few elevations above twenty-five feet. On the east side of Lake Prairie road the five miles of country north of the correction line may be considered as a maze of muskegs with small spruce, jackpine ridges, bluffs of spruce and tamarack and low areas with willow and hay growing together on the same bottom. The soft nature of the surface in this part was the reason of Lake Prairie road curving west into the township. This area is not fit for farming and should be reserved for the protection of the water supply of the country, inasmuch as it appears to form part of the natural reservoir of the basin of Turtle lake. The portion west of the road, although having its share of sloughs and muskegs, contains large areas of good farming land, the soil being a fair layer of black or sandy loam over a clay or sandy clay subsoil. This is a jackpine country, as large and numerous bluffs of jackpine measuring up to ten inches in diameter with large areas covered with small jackpine growing through windfalls, constitute the main feature of the woods. There are also many swamps with spruce up to nine inches in diameter. The best spruce is found on the sections along the correction line, espe-

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cially on those adjoining Turtle lake near where we found the ruins of a sawmill built there four or five years ago. There are few hay sloughs properly speaking, but hay is found all over, especially in willow sloughs and bottoms. If the country was opened and drained it would be an excellent hay country and an ideal one for ranching. Continuous woods covering the country furnish abundance of fuel. No stone-quarries nor minerals of any kind were found. Game consists of moose, a few deer, prairie-chickens, partridges and ducks. Bears are numerous and with muskrats, lynx, a few minks, martens and otters, constitute the fur-bearing animals of the country. Rabbits were plentiful this year.—*Geo. P. Roy, D.L.S., 1910.*

(*East outline.*)—This township is crossed by the road from Battleford to Meadow lake, which is fairly good as far as the correction line between townships 54 and 55; it is travelled only in winter through townships 55 and 56. The soil is a layer of six to eight inches of clay or sandy loam over a clay or sandy-clay subsoil, with occasional patches of outcropping stones. It is suitable for farming, being of the same nature as the soil in the settled township to the south, where excellent crops are raised. Along the outline, the northern sections are heavily rolling, nearly hilly; the remainder is rolling country. However, the Meadow Lake road, mentioned above, is not hilly in these parts. The surface in the northern part is covered with large timber, consisting of poplar, jackpine and spruce measuring up to fifteen inches on the stump. One spruce tree measured thirty-six inches in diameter. The southern three miles of the outline passed through thick small jackpine and poplar with scattered clumps of large poplar and spruce. It ends in a large swamp with spruce averaging six inches in diameter. Hay is scarce. Water is good in the sloughs and streams, which are only rivulets. There are no water-powers available. The climate is the same as in the surrounding country, dry this summer with mild frosts, which would have done no injury to the crops. There is sufficient wood to supply all the fuel wanted, and it is the only supply available in the vicinity as we found no indications of coal. No evidence of any kind of minerals was seen. Moose and bears constitute the big game with partridges, prairie-chickens and ducks as winged game. Lynx and water-rats are the principal fur-bearing animals trapped in the locality.—*Geo. P. Roy, D.L.S., 1910.*

(*North outline.*)—The surface of this township is rolling and the soil is light and sandy. Section 31 and part 32 are covered with young jackpine and willow, with old brulé. The rest of the township is timbered with poplar, spruce, jackpine and birch, with patches of brulé, the poplar comprising fully two-thirds of the timber. Three small creeks flow north across the line in this township, one in section 33 and two in section 35. A new road from Battleford to Meadow lake crosses the line in section 36. No water-powers, stone-quarries nor minerals were seen. Indications of moose were plentiful and a few partridges were seen.—*Wm. Christie, D.L.S., 1909.*

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Turtle Lake trail crosses the southwestern part of the township and is a fairly good road, though but little travelled. It branches out from the Onion Lake trail at the southwest end of Jackfish lake. The eastern part of the township is inclined to be sandy, but the western part is generally a good, dark sandy loam, suitable for grain and vegetables. The surface is very broken and hilly, all except a few sections in the southwest corner, and that part is much cut up with sloughs and ponds. The hills on the west side of Jackfish creek are cut by numerous steep ravines, sometimes nearly 200 feet deep, from many of which flow small spring creeks. About

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one-fourth of the land is covered with small poplar and willow scrub, the eastern half having the most open prairie. The timber consists of small poplar from two to eight inches in diameter, scattered throughout the township. The water is generally pretty fresh, though there is a little alkali in some of the ponds. Jackfish creek runs through the easterly part of the township. It is about 35 links wide and from one to six feet deep, with a current from two to six miles per hour. No flooding is liable to occur except of adjacent hay meadows. There are no water-powers in the township. It has been very wet this summer, but there have been no frosts. The only fuel is small poplar timber scattered about. There are no stone-quarries and no minerals. The game consists of ducks, prairie-chickens and a few deer. The grass is plentiful and there is plenty of hay of good quality scattered throughout the township.—*T. S. Gore, D.L.S., 1903.*

This township is reached by the trail which runs north from Jackfish through
50. the middle of the township. The soil is good clay and sandy loam, but is stony and suitable only for growing vegetables and grain in a small way. The surface is rolling and generally covered with willow and poplar scrub, brush and small poplar trees, with some stretches of open prairie. It is considerably broken with deep ravines. The timber is poplar, from 2 inches to 10 inches in diameter, scattered all about, but thicker on the east half of the township. There is not a great quantity of hay, but there is a little scattered about in small patches. There is a thick growth of shorter grass with vetches everywhere. There is very little water in this township, and in a dry season I fancy there would be none except in Jackfish creek, which runs through the southeast part of the township. This creek is about 25 links wide, 18 inches deep, and runs about five miles an hour. It has good fresh water. There is none of the township liable to be flooded. There are no water-powers. The rainfall is abundant and no indications of summer frosts have been observed. The only fuel is small poplar scattered about the township. There are no stone-quarries and no minerals. No game was seen, but there are said to be a few deer. This township is best suited for summer grazing.—*T. S. Gore, D.L.S., 1903.*

This township can be reached by the Turtle Lake trail from Jackfish, which
51. touches the southwest part of it. The trail is fairly good. The soil is principally clay and in many places gravelly and stony. It would be suitable only for mixed farming. The surface is irregular and rolling and is about one-third prairie, and the rest scrubby poplar bluffs and willows. The timber is poplar up to 10 inches in diameter, more or less scattered all over the township, but principally on the west half. There is considerable hay scattered throughout the northern half of the township in small areas—it is of good quality. The water in sloughs and ponds is fresh, but there are not very many of them, and water would probably be scarce in dry seasons. There are no water-powers. There have been a few slight summer frosts this year. The only fuel is poplar, which is scattered throughout the township. There are no minerals and no exposed rock. The only game seen was a few ducks and prairie-chickens.—*T. S. Gore, D.L.S., 1904.*

(*East and west outlines.*)—This township is a good farming country with good rolling surface and plenty of firewood, a good deal of building timber and fresh water. The soil is a fair depth of black loam and the township comprises much prairie. Hay is plentiful on the southwesterly quarter of this township. Throughout the country described above there is no alkaline water, stone-quarries, coal, lignite nor petroleum. Water-powers might be available on either branch of Turtlelake river as these streams are very rapid in places. A few deer, one bear and a small number of game birds

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were all the game seen. The south branch of Turtlelake river may be forded on the boundary of range 19 and also about one-half mile east of the large lake in township 52, but is scarcely fordable at any other point.—*J. J. Dalton, D.T.S., 1903.*

This township may be reached via Turtle Lake trail from Jackfish lake. The
52. trail is poor and very little used. The soil is generally a dark loam inclined to be stony on the higher ground; it would be suitable for general farming. The township is undulating, with many swamps and almost entirely covered with willow and poplar scrub and timber. The timber is white and black poplar up to 12 inches in diameter and also a little spruce of about the same size scattered about. The greater part of the timber is on the north half of the township. There is a heavy growth of long grass, but not much of it is available for hay on account of the brush growing through it. The water is fresh and permanent and is very high this year, a good deal of the low land being flooded. A lake extends nearly half way across the township from the east boundary. It is shallow, with flat shores. It empties into the south branch of Turtlelake river which flows westward across the township and this year is a stream from 4 to 10 feet deep and a chain and a half wide running about 3 or 4 miles an hour. Land adjacent to the lake is liable to be flooded 2 or 3 feet deep in places. There are no water-powers. This part of the country is more subject to summer frosts than the more open country to the south. The climate is otherwise similar. The only fuel is poplar, scattered all over the township. There are no minerals and no stone suitable for quarrying. Ducks and deer are the only game.—*T. S. Gore, D.L.S., 1904.*

(*East and west outlines.*)—The northern part is as rough and uninviting as that of township 52, range 19. The south branch of Turtlelake river in this township expands into a lake about three miles long by two and one-half wide, extending east of the line into range 17 about 50 chains, then spreading west over sections 24, 13, 12 and others. South of the lake there is good hay and grass land, deep loamy soil and rolling prairie with clumps of poplar and patches of scrub. Timber is abundant; on the north shore of the lake it is especially so.—*J. J. Dalton, D.T.S., 1903.*

(*North outline.*)—Turtle lake covers about one-third of section 31. On the eastern side of this lake the country is stony and much more open. It rises gradually from the lake shore and is covered at intervals with scrub which extends through sections 32, 33 and most of 34, where the country becomes marshy and poplar bush appears. In many places north of the line and not more than a quarter of a mile distant are belts of spruce, none of which, however, is over twelve inches in diameter. Sections 35 and 36 are timbered mostly with poplar and small clumps of spruce with heavy underbrush. Here the country becomes very wet. The soil, which is generally stony, is a sandy loam six inches deep with a subsoil of clay and stones. An old cart trail following close to the lake shore crosses the base line ten chains west of the quarter section post of the north boundary of section 31; while two very old trails leading probably directly across country to the upper end of the lake, cross within ten chains of the northeast corner of section 33 and on either side of it.—*A. Saint Cyr, D.L.S., 1903.*

Access to this locality from Battleford is by the Turtle Lake trail
53. to the foot of the lake of the same name and thence by an Indian trail following the east bank of this lake into the township and past it. It may also be reached by the road to Stony lake and thence by the Indian trail to Turtle lake, which forms the western boundary of the greater part of the township. Across

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the lake on the western side, there is only a small portion of the northeast corner of the township accessible by the Indian trail from Warner's store at the foot of the lake. The soil is a fairly good layer of clay or sandy loam over a clay or sandy clay subsoil, which, in spite of patches of small boulders and stones, is quite suitable for farming. The surface is rolling and covered mostly with small poplar and willow, very dense in some parts, with scattered bunches of poplar six to eight inches in diameter. The only wood of any commercial value is found on that part of sections 28 and 34 lying between the trail and the lake. It is mostly jackpine and spruce up to twelve inches in diameter. In nearly every section are found hay sloughs of a few acres in area, and there is also a great deal of hay on section 13 north of Head lake as well as in the large sloughs on sections 24 and 25. There is good water on every section, at least wells give an ample supply of it. The few streams flowing through the township were all dry this summer; in fact there were only rivulets and consequently there are no water-powers available. The climate is good and although we had frosts in September they were too late to damage any crops. Wood for fuel cannot last long as it is of small size. It will therefore be necessary to use it with care and moreover, as there are no evidences of coal in the country, it would be advisable to reserve for the wants of the settlers those parts of sections 27, 28 and 34, which contain the largest timber in the township. We found no stone-quarries nor minerals of any kind. Game consists mainly of a few bears and moose, with partridges, prairie-chickens and ducks. We saw no valuable fur-bearing animals.—*Geo. P. Roy, D.L.S., 1910.*

The most direct route to this locality from Battleford is the Turtle Lake trail to Warner's store at the foot of the lake of the same name. This lake runs through the township in a northerly direction, dividing it into two parts. From Warner's store an Indian wagon trail leads into the township on either side of the lake. It is also accessible by the trail to Stony lake and thence by Indian trails leading to Turtle lake. The soil is a fair layer of clay or sandy loam over a clay or sand and clay subsoil well adapted to farming purposes. The surface is rolling. The southern sections on the east side of the lake are mostly covered with small poplar and willow, while groves of large poplar and jackpine with good spruce occur along the lake. The north half contains mostly large timber consisting of poplar, jackpine and spruce, ranging up to twelve inches in diameter. The ruins of a mill, built four or five years ago, lie near the lake, in the small bay occupying the northwest corner of section 36. The south half of the western part is covered mostly with willow, small poplar and hay sloughs, but the northern sections contain large areas of good poplar, jackpine and spruce, the last kind predominating as you approach the lake. There are few hay sloughs in the eastern part except in the swamp, which is about one quarter of a mile wide, and lies back of the natural dyke running along the lake. In the western part, all around the Indian reserve, and for about a mile north of it, hay grows in large quantity in the sloughs, which are numerous in the sections bordering on the lake. In fact, hay is the main reason for the location of the Indian reserve in these parts. There is also a great deal of hay growing among the willows along the shores of Horseneck lake. The water is good; the main source is Turtle lake, but it was also found in the sloughs in nearly every section, and the digging of wells will give an ample supply for all needs. There is no stream of any account and consequently no water-power. The climate was dry this season with no frosts heavy enough to do any damage. There is plenty of wood for fuel for years to come. We saw no sign of coal or lignite and I heard no mention of its existence in the surrounding country. I know of no quarries nor minerals of any kind in this

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township. As in the neighbouring townships, moose, with a few bears, are the most abundant game. There are also partridges, prairie-chickens and ducks. Lynx, minks and a stray marten or otter are the fur-bearing animals of this section.—*Geo. P. Roy, D.L.S. 1910.*

The most direct road to this township from Battleford is the old Turtle Lake
55. trail as far as Warner's store at the south end of the lake of the same name.

Beyond this we travelled by an Indian wagon trail to within three miles of the south boundary of the township, which we finally reached by opening a trail through the bush and then skirting the southeast side of Horseneck lake. The soil, a thin layer of clay or sandy loam over a sandy clay or clay subsoil, appears to contain the same elements as the soil in the township to the south, where the settlers are satisfied with the result of their work. The surface is rolling and covered with continuous woods. In the northern part, dense small jackpine is the most common variety of timber, while jackpine, spruce and poplar up to twelve inches in diameter, and over, predominate in the middle and southern sections. There are few hay sloughs of any extent. In its present state this country is not a hay producing one. The water is good but owing to the dryness of the season it was scarce. As it is the only one about here of any length I may mention the tiny stream, which drains the waters of the northeastern sections into Horseneck lake. This lake, arms of which extend into sections 4 and 5, and Wapous lake occupying the adjoining corners of sections 7, 8, 17 and 18, are the principal bodies of water in the township. The climate is fair, very dry towards the fall, with light summer frosts but not severe enough to do any damage. Wood is the only available fuel at present, and if used economically by the settlers, the supply will last indefinitely. Moose, bears and rabbits, prairie-chickens, partridges and ducks are the game of the country. The fur-bearing animals are mostly lynx, some minks and a few martens. In the latter part of the fall the lakes, above mentioned, were covered with a great number of rat houses, which protruded everywhere through the ice.—*Geo. P. Roy, D.L.S., 1910.*

The route to this township is by the old trail leading from Battleford to the
56. foot of Turtle lake, over which in summer all the traffic to Prairie lake passes, thence by a wagon trail to the Indian reserve lately established west of the lake, and thence by an old pack trail opened for wagon traffic for a distance of about two miles north of the Indian reserve. Farther on we opened the old pack trail to the north boundary of township 55, and from there we cut a rough trail to the north part of section 22. The surface is nearly level with slight undulations and very few elevations of any consequence. These elevations are approached by long easy slopes having almost unbroken surfaces. There is very little valuable timber left in this township which is covered mostly with small jackpine and the standing remains of large jackpine and dry spruce. The fires of last spring killed all the timber that was spared by the preceding fires, and also the new growth of jackpine, which had sprung from the ashes of the primitive forest. In consequence, the clearing of the land will be easy in most parts, and, as the soil is a fair layer of black loam with a sandy clay subsoil, the land is quite suitable for farming purposes. The only hay slough of any extent was found on the southern part of section 3 and the hay was not of the best quality. Water was good where found, but it was scarce owing probably to the fact that the summer season in this section of the country was dry, there being very little rain. There are no water-powers. We had early frosts in these parts, but they were not heavier than in any other part of the west which is not under cultivation. There is plenty of wood for fuel, but most of the timber being dead, it will

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be of no use in a few years. I would therefore advise the reservation of all the green timber remaining in this township. It is not of high commercial value, but being found mostly in muskegs, would preserve the water supply by protecting the sources from which it springs. No evidences of minerals of any kind were found, and there are no stone-quarries. This section of country, with the townships east and south of it, is the hunting ground of the Indians residing on the reserve above mentioned. We saw traces of lynx, martens, minks, and muskrats in large numbers in every slough where there was water. Moose provide the Indians with a plentiful supply of fresh meat. Judging from the deep ruts in the numerous trails we crossed, it would appear that the country has been for a long time the grazing ground of the moose. Prairie-chickens, partridges and ducks in great numbers were noticed everywhere.—*Geo. P. Roy, D.L.S., 1910.*

(*North outline.*)—The surface of this township is gently rolling. The soil is principally sand or sandy clay. Sections 31, 32, 33 and part of 34 are covered chiefly with heavy brulé, with a few scattered clumps of green poplar, spruce and jackpine, and a few muskegs. The remainder of section 34 and sections 35 and 36 are covered with old brulé and young jackpine. A small creek flows north across the line in section 31. No water-powers, stone-quarries nor minerals were noted. Indications of moose were plentiful, but no game of any kind was seen during the survey.—*Wm. Christie, D.L.S., 1909.*

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The Battleford and Onion Lake trail touches the southwest corner of this
49. township and the Turtle Lake trail, which branches off from the former at the southwest end of Jackfish lake, enters this township in section 13 and leaves from section 35. They are both fairly good roads. The soil in the eastern half of the township is light and sandy, in the western half it is fairly good, but is much broken by sloughs and soft marshes. It is suitable for grazing and hay. The township is about one-third brush and small poplar and willows. The surface is generally rolling. The timber is scrubby poplar from two to eight inches in diameter, and is scattered in clumps throughout the township. There is plenty of good hay on nearly every section. There is a small stream of good water about 15 links wide, running south through the westerly tier of sections from section 31 to section 18, and also a stream about the same size, running south through the easterly tier of sections, and a fine fresh water lake on sections 23 and 24, with sandy shore and bottom. There are small ponds scattered all over the township generally with fairly good water, and also some alkaline ponds and sloughs. There are no water-powers. The weather this summer has been very cool, with a good deal of rain. No indications of summer frosts were noticed. The only fuel is small poplar scattered through the township. There are no stone-quarries and no minerals. There are plenty of ducks, prairie-chickens and deer.—*T. S. Gore, D.L.S., 1903.*

Turtle Lake trail runs north through this township from section 2 to section
50. 35. It is a fairly good road, though but little travelled. It leaves the Battleford and Onion Lake trail at the southwest end of Jackfish lake. The soil is generally a rich clay loam, inclined to be stony where the land is rolling. It is suitable for mixed farming. The surface is rolling on the south and west parts of the township and very broken and rough near the creek which flows south between the two most westerly tiers of sections, and in the eastern and northern parts of the township, flat and marshy. About one-third of it is covered with small poplar, willows

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and brush, most of which is on the west half of the township. The timber is scrubby poplar from two to eight inches, mostly on the west half of the township. There is a quantity of good hay, nearly half the area of the two easterly tiers of sections being hay land; there is also a good deal scattered about the rest of the township. There are numerous small ponds of fresh water scattered throughout the township, and a stream of good water about 15 links wide runs south along the line between the two westerly tiers of sections and a small stream which does not run all summer, flows south between the two easterly tiers of sections. There are no water-powers. It has been a cool wet summer this year. There are no indications of summer frost. The only fuel is small poplar scattered about the township. There are no stone-quarries, and no minerals were discovered. There are plenty of prairie-chickens and ducks and a few deer. The township is better suited for stock-raising and dairying than for grain-growing.—*T. S. Gore, D.L.S., 1903.*

Turtle Lake trail runs through the eastern tier of sections in this township;
51. it is a fairly good road. The soil is variable, being slightly gravelly on the higher land and heavy loam and clay in the flats. In places it is suitable for vegetables. The southeastern third of the township is nearly all marsh and hay land, with a few clumps of willow and poplar brush scattered through it. The portion lying north and west of a line from section 36 to section 5 is undulating and covered more or less with willow and poplar brush and, in some places, poplar and scattered spruce up to fourteen inches in diameter. The timber is scrubby poplar and a little spruce up to fourteen inches in diameter scattered through the northwestern part of the township. There is a quantity of hay all through the southeastern portion, but it is of rather poor quality. The water is in shallow ponds and marshes, and is not very good; it probably contains a little alkali, and is very hard. Nearly all the southeastern portion, described as marshy, is liable in wet seasons to be covered with a foot or two of water. The climate is variable, but not very liable to summer frosts. The only fuel is poplar, from bluffs, in the northwestern two-thirds of the township and from adjoining townships. There are no stone-quarries and no minerals. The only game is ducks and snipes. This township is suitable only for dairy farming, or cattle ranching on a small scale.—*T. S. Gore, D.L.S., 1903.*

(*East and west outlines.*)—There is much prairie along the eastern boundary and the whole township is more open than the one to the north of it. It is also better adapted to either agriculture or cattle ranging. There is a good supply of hay and plenty of firewood, but very little building timber; although on section 19 there is a fine spruce bluff. The land is rolling with a good average black loam soil on light subsoil.—*John J. Dalton, D.T.S., 1903.*

This township may be reached by the Turtle Lake trail from Battleford via
52. Jackfish lake. The trail, except for the last 10 miles is fairly good. The soil is generally dark loam and clay and is suitable for general farming. The surface is nearly all covered with scrub and timber and is slightly rolling. The timber is principally poplar up to 14 inches in diameter, and scattered clumps of spruce about the same size. There is considerable fallen timber in the northern part of the township and travelling is very difficult. In dry seasons there would be considerable hay in sloughs and flats this year flooded, and so not available. The water in sloughs, lakes and creeks is good and fresh. The south end of Turtle lake occupies about 2 sections in the northeast corner of the township and empties into Turtlelake river, which flows through the township and out near the southwest corner. It is joined by the south branch in section 9. This summer they are both about from 1

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chain to one and a half chains wide and from 3 to 6 feet deep, flowing about 3 miles per hour. Both streams caused me considerable loss of time on the survey of the township, as in most places they could not be crossed without a boat. There is no water-power. Poplar is the only fuel and it is found everywhere in the township. There are no stone-quarries and no minerals. The weather has been very fine all summer, with sufficient rain, but there has been more or less frost each month. Ducks deer and bears were the only game seen. Fish are plentiful in Turtle lake.—*T. S. Gore, D.L.S., 1904.*

(*East and west outlines.*)—Turtle lake cuts deeply into the northeast corner of this township destroying several sections. This lake is beautiful, extending for miles to the northeast. It abounds with fish and has beautiful bluffs of spruce around its shores. The land is very inferior along the eastern boundary and north of the south branch of Turtlelake river, where the soil is shallow and the country scrubby. South of this river, there are two or three hundred acres of good prairie with deep black loam and light clay subsoil. This township has plenty of poplar for fuel and some spruce for building timber. Hay is not abundant.—*John J. Dalton, D.T.S., 1903.*

This township can be reached by the Turtle Lake trail from Battleford, but
53. it is not a good road. The soil is a sandy and clay loam, and if the land was cleared might be suitable for mixed farming. The general surface is slightly rolling and covered with poplar and willow brush, and scattered poplar and spruce timber. The timber is poplar up to 14 inches diameter and spruce up to 24 inches diameter, scattered about this township. There is a little hay around some of the sloughs and near the shore of Turtle lake. The water in Turtle lake and in the ponds is fresh. This lake occupies about five sections in the southeast corner of the township. There are no water-powers. The climate is similar to that in other parts of the district, but is more subject to summer frosts than the more open country. The fuel is poplar, growing all over the township. There are no stone-quarries and no minerals. Moose were the only game seen. Jackfish are very plentiful in Turtle lake.—*T. S. Gore, D.L.S., 1904.*

The nearest railway point to this township is the station of Paynton on the
54. main line of the Canadian Northern railway. From this point the Mervin road is followed as far as Mervin, after which the Brightsand Lake trail is followed as far as Brightsand lake. From here the Meadow Lake trail is followed about five miles northward to where another trail, running east for about three miles, strikes the west boundary of this township, and continues east right across the township. With the exception of a very bad hill at the point where the Saskatchewan river is crossed and a few wet spots on the Meadow Lake trail, the route is a very fair one. The soil is mostly a clay loam on a clay subsoil and is stony in very few places, being suitable for general farming purposes. The surface of this township may be described as generally wooded and is of a gently rolling character in most localities. Most of it has been burnt over at one time or another and a great deal of the timber is fire-killed. Poplar, spruce, jackpine, tamarack and birch are the varieties of timber found upon this township. Although much of the timber has been fire-killed there still remains some fairly good timber, notably on sections 7, 8, 9, 10, 12, 15, 18, 16, 19, 30, 31, 32, 33 and 34. No very large supply of hay is obtainable upon any portion of this township as the swamps are all too wet to permit of cutting hay upon them and but little high-land hay grows. The only hay meadows noted were upon sections 8, 20, 26, 36 and 31. Water is fairly plentiful and

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of a good quality in the lakes and swamps found throughout. Lakes were noted on sections 2, 10, 9, 11, 16, 15, 14, 13, 26, 27, 18 and 19. The land is not liable to floods and no water-powers of any economic value are found. The climate may be described as suitable for general farming purposes. Some summer frosts were experienced, but nothing worse than has been experienced farther south in districts which are now successfully farmed. The past season was counted a dry one for this section of the country, but the rainfall even during this year has been abundant for farming purposes. Firewood may be obtained in abundance in any part of this township, but no coal nor lignite veins were observed. No stone suitable for quarrying nor minerals of any economic value were found. Game consists of a few moose, caribou, jumping deer and prairie-chickens while partridges and ducks are plentiful.—*W. M. Stewart, D.L.S., 1910.*

The nearest railway point to this township is Paynton on the main line of
55. the Canadian Northern railway. From Paynton, the Mervin road is followed as far as Mervin, after which the Brightsand Lake trail is followed as far as Brightsand lake. From here the Meadow Lake trail is followed as far as Horsehead creek, a short distance north of which the surveyor's road branches off from the Meadow Lake trail and leads easterly to the centre of township 56, and thence southerly into this township. With the exception of a very bad hill at the point where the Saskatchewan river is crossed and a few wet spots on the Meadow Lake trail and the surveyor's trail, the route is a fairly good one. There is considerable swamp land found throughout this township, the soil of which, under the existing conditions, is of very little use. The high land, however, is mostly a clay loam on a clay subsoil and being stony in but few places, is suitable for general farming purposes. The surface is almost entirely wooded and may be described as gently rolling. A large amount of swamp land was observed, particularly in the eastern portion and extending east and west across the centre of the township. The high land has in a great number of places been burnt over and is covered with second growth jackpine and poplar. Poplar, spruce, jackpine, tamarack and birch are the varieties of timber met with, but there is not much timber large enough to be of economic value. Most of the good timber which at one time grew upon this township has been destroyed by fire. A limited amount of good building timber, is however, still to be found on sections 1, 2, 3, 4, 5, 6, 8, 12, 19, 22, 24, 25, 31, 32, 33, 34, 35, and 36. Most of this timber is about ten inches in diameter. No upland hay was noted, but during a year such as the past one has been, considerable hay could be cut around the edges of the large swamps in the eastern part of the township, notably on sections 25, 34, 23, 20, 7, 9, 8 and 3. During an ordinary year this would, however, be impossible, as with the normal amount of rainfall the swamps would be too wet. Horsehead river, which flows westerly across the centre of this township furnishes the adjacent sections with a good and constant water supply. Water is also conveniently obtained in almost any portion by digging wells adjacent to the numerous swamps, and the water obtained in this manner is of a very fair quality. The land outside of the swamps is not liable to be flooded, and no water-powers of any economic value exist in this township. The climate may be described as suitable for general farming purposes. Some summer frosts were experienced but nothing worse than has been experienced farther south in districts which are now successfully farmed. Although this was a generally dry year throughout this locality, sufficient rain fell to provide all the moisture necessary for successful farming. Firewood may be obtained in abundance in any part of this township, but no coal nor lignite veins were observed. No stone suitable for quarrying nor minerals of any economic value

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were noticed. A few moose, caribou, jumping deer and prairie-chickens are to be found, while partridges and ducks are plentiful.—*W. M. Stewart, D.L.S., 1910.*

The nearest railway point to this township is Paynton on the main line of
56. the Canadian Northern railway. From this point the Mervin road is followed as far as Mervin, after which the Brightsand Lake trail is followed as far as Brightsand lake. From here the Meadow Lake trail is followed as far as Horsehead creek, a short distance north of which the surveyor's road branches off easterly to this township. With the exception of a very bad hill at the point where the Saskatchewan river is crossed and a few wet spots on the Meadow Lake trail and the surveyor's trail, the route is very fair. The soil is mostly a clay loam on a clay subsoil and, being stony in very few places, is suitable for general farming purposes. The surface is almost entirely wooded, with the exception of a few stretches which have been burnt almost bare. In some localities there is a great deal of brulé and deadfall, piled four or five feet high. Poplar, spruce, jackpine, tamarack and birch are the kinds of timber found. A great deal of the timber has been fire-killed, but there still remains some fairly good timber, ranging from six to ten inches in diameter. This is found principally on sections 1, 2, 3, 4, 5, 7, 8, 9, 15, 20, 25, 23, 28, 30, 33 and 36; but no large single area of timber was observed. There is very little hay obtainable, the only quantity noticed being along the banks of Rabbit creek and this only a narrow strip. The swamps are mostly too soft to permit of cutting hay upon them. This township is well supplied with good water; Rabbit creek flows across it diagonally furnishing a good and reliable supply. There are, however, but few lakes, those on sections 13 and 24 being the only ones of any size. Water is, however, obtainable in almost any of the swamps and, by digging a well, a very fair quality of water is obtained. The land is not liable to be flooded and no water-powers of any economic value are found. The climate may be described as suitable for general farming purposes. Some summer frosts were experienced, but nothing worse than has been experienced farther south in districts which are now successfully farmed. Firewood may be obtained in abundance in any part of the township, but no coal nor lignite veins were observed. No stone suitable for quarrying nor minerals of economic value were found. Moose, caribou and jumping deer are found, while partridges and ducks are plentiful; a few prairie-chickens were also noticed.—*W. M. Stewart, D.L.S., 1910.*

(*North outline*).—The surface of this township is gently rolling. Section 31 is timbered with poplar and spruce up to fourteen inches in diameter. Section 32 is covered with poplar, spruce, birch and jackpine. The rest of the township is covered chiefly with brulé, with a few scattered patches of green timber and numerous muskegs. It is apparently about three or four years since the fire passed over this township. In many places the brulé is very heavy, the fallen timber being piled five feet high in many places. The soil is light and sandy. A number of small creeks flow north across the line of the township. Rabbit creek flows westward across this township, entering it in section 24 and leaving it from section 30. Moose are plentiful in this vicinity. No water-powers, stone-quarries nor minerals of any kind were seen.—*W. M. Christie, D.L.S., 1909.*

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This township is reached by the Onion Lake trail from Battleford, which
49. runs through it from section 13 to section 31, and is a good road. In the southern part of the township the soil is light and sandy, but the north and

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easterly parts are better. It is suitable for pasture, and in places for general farming. The surface is generally rolling, with some large flats and sloughs. It is about one-third, or a little more, covered with bluffs of small poplar and willows scattered throughout, and the balance is prairie and little ponds and sloughs. The timber is small poplar, seldom exceeding 6 or 7 inches in diameter, and is scrubby. It is scattered about through the township, the greater part of it being in sections 15, 16, 17, 18, 19, 20, 29 and 30. There is plenty of good hay to be obtained nearly all over the township, particularly on section 24. Water is fresh, but is very slightly alkaline. Turtle river winds through the township from the northwest corner to the southeast. It is about a chain wide, and from 3 to 6 feet deep and runs about $2\frac{1}{2}$ miles per hour. I see no danger of flooding from it. There are no water-powers. The climate is good; I have seen no indication of summer frosts. The only fuel is poplar, obtained from bluffs scattered throughout the township. There are no stone-quarries and no minerals. There is one rancher located in the township on section 32, who has been there about eight years. He bought out a former occupant. He raises quite a number of horses and cattle and says he has some 40 acres under cultivation.—*T. S. Gore, D.L.S., 1903.*

This township lies about 4 miles north of the Battleford and Onion Lake
50. trail, and is easily approached from it. The trail is in fair condition. The soil is generally a clay loam, though sandy in some places near Turtle river. It is suitable for general farming. The surface is rolling and about one-fourth covered with scrub and small poplar, most of the scrub being on the north and east parts of the township. The only timber is poplar up to 6 inches in diameter, scattered about principally near the northeast part of the township. There is very little hay; a small quantity could be obtained around sloughs throughout the township. The water in ponds is fresh. Turtle river flows down the west side of the township, and this year is about one chain wide and 4 feet deep. The water is good and flows about $2\frac{1}{2}$ miles per hour. The land is not liable to be flooded. There are no water-powers. The climate this summer has been very cool and wet. There are no indications of summer frosts. Small poplar is the only fuel. It is scattered about the township, but is more plentiful on the northeast part. There are no stone-quarries nor minerals. Ducks and prairie-chickens were the only game seen.—*T. S. Gore, D.L.S., 1903.*

(*East and west outlines.*)—This township is much better than the one to the
51. north. Along the eastern boundary it is scrubby, with a good deal of poplar scattered on both sides of the east boundary. To the east the country appears more open, with better prospects for agriculture. This township appears to be generally hilly with many sloughs. There is no hay. Turtlelake river crosses the northeast corner of this township; it is rapid and not fordable for horses.—*J. J. Dalton, D.T.S., 1903.*

(*Subdivision.*)—The trail to Emmaville post office passes through the southwest corner of this township, and is a fairly good road. The soil is a rich black loam, and is suitable for general farming. The surface is rolling, and a great deal of it is covered with poplar and willow scrub and small poplar timber scattered throughout, but thicker on the eastern half of the township. The timber is scrubby poplar up to 10 inches in diameter, scattered all over the township, but thicker on the east half. There is not very much hay, but what there is is good, and is scattered about mostly in the southern part. The grazing is very good. The water in sloughs and ponds is fresh and good, and there is plenty of it. Turtle river flows through the northern part of the township. It is about a chain wide, and from 3 to 5 feet deep, running about $3\frac{1}{2}$ miles per hour; water good, but hard. It is not liable to cause floods on the

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adjacent land. There are no water-powers. The climate is variable; there are no indications of summer frosts. The only fuel is small poplar scattered about the township. There are no stone-quarries and no minerals. Prairie-chickens and ducks were the only game seen. There is a growth of upland grass and vetches throughout this township, and being so well sheltered with thick brush and small timber, it would afford splendid winter pasture for horses.—*T. S. Gore, D.L.S., 1903.*

(*East and west outlines.*)—This township is rolling, scrubby and hilly, with
52. clumps of small poplar, poplar thickets, numerous deep ponds and sloughs. The soil is very shallow everywhere along its eastern boundary, and is not well adapted to either farming or grazing. Fuel is plentiful, and building timber can be found in small quantities only. Hay is scarce.—*J.J. Dalton, D.T.S., 1903.*

(*North outline.*)—Through part of this range the country continues rolling. It becomes quite hilly in the eastern half, and is generally covered with patches of young poplar and willow scrub, among which there are many small prairie openings. Half a mile to the north of the line lies Brightsand lake, which is 4 miles in diameter. Near its southern extremity, in section 3, township 53, are a few shacks inhabited during certain seasons of the year by Indians in quest of fish, with which this lake, like so many others in this district, abounds. Three roads coming from the south intersect the north boundary of this township. The central one intersects the line near the middle of section 34, and leads through open country to those shanties. The eastern wagon road winds amongst the hills near the northeast corner of the township, whilst the third one is a new trail crossing the line close to the northeast corner of township 52, range 21. No streams of any account were intersected by this line. The soil in sections 31 and 32 is a sandy loam, eleven inches deep, overlying a sub-soil of clay.—*A. Saint-Cyr, D.L.S., 1903.*

(*Subdivision.*)—This township can be reached by my survey trail from Emma-ville post office; it is chopped out and bridges built where necessary; the latter will probably stand for several years, as the water in creeks is abnormally high this year. The road is bad. The soil is generally a good clay loam, but rather stony. It is suitable for any of the usual crops of the country. The surface is generally slightly rolling, and is almost entirely covered with poplar and willow brush up to fifteen feet in height with bluffs of larger timber. The timber is poplar from 4 inches to 10 inches in diameter, and a few clumps of spruce up to 12 inches, the latter being scattered about near the middle of the township. The poplar is found all over the township, but more dense in the eastern half. There is no hay except a little on section 8, south of the lake there. The water in the lakes is fresh and apparently permanent. Turtlelake river, where it flows through the southern part of the township, is a large stream from three to ten feet deep and a hundred feet wide. It runs from one to five miles per hour in different places. The stream running out of the lakes into Turtlelake river is about 60 links wide and 3 feet deep and runs about four miles per hour. After a succession of dry seasons, however, there is probably very little water in either of them. All the northern and eastern part of the township is singularly dry, with very few ponds or sloughs. There are no water-powers. The climate is variable. There was ice formed on June 13th. There are no stone-quarries, but plenty of granite boulders. There are no minerals. Signs of deer and moose were seen, but no small game, except a few ducks.—*T. S. Gore, D.L.S., 1904.*

This township can be reached by an old trail, running westward from the
53. Meadow Lake trail, leaving the latter between Turtle lake and Brightsand lake; the trail is poor and little used. The soil is sandy on the higher lands and vegetable loam on the flats. It would be suitable for mixed farming. The sur-

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face is slightly rolling and most of it is covered with scrub and clumps of poplar and spruce. The timber is poplar and spruce up to 14 inches in diameter, and is scattered about the township, but principally in the north and east portions. There is considerable good hay on sloughs south and west of Brightsand lake. The water is fresh and good particularly in Brightsand lake and the stream flowing out of it on the southwest side. Brightsand lake occupies more than one-third of the township, and is a beautiful clear-water lake with clean sandy and stony bottom; it extends about two miles north of the township. The stream running out of the lake is about fifty links wide, and two or three feet deep flowing about three miles per hour. It overflows its banks by about ten chains during high water for about two miles down from the lake. There are no water-powers. There was ice formed in August, otherwise the climate appears good. The only fuel is poplar, scattered all over the township. No stone-quarries nor minerals were noticed. The game is deer, moose and a few ducks. There are plenty of whitefish and jackfish in Brightsand lake.—*T. S. Gore, D.L.S., 1904.*

54. The trail from Paynton to Mervin and the trail from Battleford to Jackfish, which run around the east and west sides of Brightsand lake respectively, join in this township, and run north to Meadow lake. Both trails are excellent. Very little of this township is suitable for agriculture as the soil is very light and sandy. There are no settlers. The surface is rolling with numerous sand hills and is marshy in the northern part along the correction line. Sections 1 and 2, 5 to 8, 15 to 17 and 20 to 22 are covered with poplar scrub, but large patches of prairie occur. The remainder of the township is well timbered with poplar of an average diameter of four inches and some pine in ridges. A few spruce are found near the lakes, while birch and willow scrub grows in spots. The only hay available is upland hay of a poor quality. The water is fresh, the supply being sufficient and permanent, but there are no water-powers. There is a small creek flowing into Brightsand lake in section 2. No stone-quarries nor minerals were found. Moose and deer are numerous, while partridges, prairie-chickens and ducks are plentiful. The land is not liable to be flooded. Frosts occurred early in August.—*J. J. Stock, D.L.S., 1910.*

55. The Meadow Lake trail from Paynton and Battleford runs through sections 4, 9, 8, 17, 20, 29 and 32, and that part of the trail which lies within the township is exceptionally poor, muskegs occurring at intervals. The township is mostly covered with muskeg while the surface of the remainder is rolling, the soil being light and sandy. The township is well timbered with poplar and balm of Gilead of an average diameter of five inches, but small brulé spruce and tamarack predominate, being found in the muskegs. Most of the township is brulé but there is no windfall as yet. There is no hay to be found. Water is abundant everywhere. Horsehead creek runs through sections 13, 24, 23, 27 and 34 and is about forty links wide, with an average depth of two links and a current of about a quarter of a mile per hour. The land in many places along the stream is probably liable to be flooded in the spring, but there is no water-power. The climate is the same as that prevalent in northern Saskatchewan. There is no lack of wood for fuel, but no stone-quarries nor minerals were found. Moose and deer are very numerous, and a small colony of beavers has constructed a dam on Horsehead creek. Partridges, prairie-chickens, rabbits and ducks were seen.—*J. J. Stock, D.L.S., 1910.*

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The Meadow Lake trail from Paynton and Battleford runs through the west-
56. erly section of this township. A trail from St. Walburg branches in at the north boundary of section 7. That part of the main trail in sections 5, 7 and 8 is very poor but the remainder is fair. The soil is mainly clay with a few inches of black loam, being suitable for mixed farming, but there are no settlers. Slough hay is available in sections 28 to 33, inclusive. The surface is rolling and is well timbered with poplar of an average diameter of six inches. Spruce occurs in places along Horsehead creek and is scattered here and there. Pine is found in a few places as well as birch, willow and tamarack, but a considerable part of the south third of this township is brûlé. There is a permanent and sufficient supply of fresh water. Horsehead creek, a stream averaging forty links in width and two links in depth with a current of a quarter of a mile per hour, runs through the northwestern part of the township. The land along the stream is not liable to be flooded as the banks are high. Numerous creeks occur, while water may be had in every section by digging. There is no water-power. Dry poplar is available for fuel anywhere in the township. There are no stone-quarries nor minerals. Moose, deer, partridges, prairie-chickens, ducks and rabbits were seen.—*J. J. Stock, D.L.S., 1910.*

(*North outline.*)—The surface of this township is gently rolling. It is timbered with poplar, with a few scattered spruce and jackpine, and contains many small willow sloughs and hay meadows. The soil on the high land is chiefly sandy clay; in the depressions it is black loam. This township should be well adapted to mixed farming. Rabbit creek crosses the line in section 36, flowing north. This stream is about twenty feet wide, and at the time of the survey (May 27th) was about seven feet deep. Along the banks of this stream are extensive hay meadows. The trail from Battleford to Meadow lake crosses the line in section 34. This trail was in very bad condition at the time of the survey (May). Moose are plentiful in this vicinity. A few partridges were also seen. No water-powers, stone-quarries nor minerals were noted.—*Wm. Christie, D.L.S., 1909.*

RANGE 21.

The soil in the part on the west side of the river and of a little high plateau
49. in the middle of the township is a light sand with no alluvial soil and ranks as third-class; the remainder, though nearly all on a sandy subsoil, ranks as second-class, having a good bed of black loam. The whole surface is rolling and partly covered with widely scattered bluffs of young poplar and willow. Good timber is found in some small strips along the river and on the islands in the river, which are all well wooded. There is quite a large number of short but steep ravines, which run into the river valley; most of them are partly wooded with young poplar and willow. Access to the river is difficult on both sides on account of the steepness of the banks, which vary from a hundred and fifty to two hundred and twenty-five feet in height. The small creek at the eastern part of the township was not flowing at the time of the survey; it was but a succession of small pools of good and fresh water. Except in this creek, good water is not abundant; marshes and ponds are scarce and generally consist of alkaline water. Remains of timber and brush, partly destroyed by fire, are found nearly all over this township. Biggully creek empties into the river in section 7; it is about one chain wide at its mouth.—*A. C. Talbot, D.L.S., 1884.*

The Onion Lake trail from Battleford runs through the township from the
50. southeast corner to the centre of the west boundary, and most of the way it is a very good road. The soil is a rich clay and sandy loam with subsoil of clay, and in some places sand and gravel combined with clay, the high ground gene-

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rally stony. It is suitable for grazing and hay. The surface is slightly undulating and is about two-thirds prairie and one-third willow and poplar scrub. There are numerous small ponds and marshes. The timber is small poplar, seldom exceeding 5 inches in diameter, and willow brush, the latter very dense where it occurs. The timber is scattered in small clumps or bluffs. Plenty of hay can be obtained around most of the marshes throughout the township, but it is most plentiful in a valley, about 75 feet below the general surface, running through sections 7, 8, 9 and 13. There is plenty of fresh water in marshes. Turtle river, a rapid stream about 50 links wide and three feet deep, touches the northeast corner of the township; its water is good and fresh. Englishman river runs through the western limits of sections 7 and 6 into the Saskatchewan and contains good water. It is a rapid stream about 25 links wide and two feet deep. The land is not liable to be flooded by either of these streams. This year there have been strong northerly gales with snow and rain up to May 25th. I am unable to state whether there are summer frosts or not. No water-powers exist in the township. The fuel is small poplar, obtained from the clumps scattered about. No stone-quarries nor minerals were observed. There are numerous ducks and prairie-chickens, and deer are said to be plentiful. The valley of Englishman river is broken by land-slides which appear to be of quite frequent occurrence. This township is generally better adapted to stock-raising than to agriculture, though some parts of it are suitable for the latter.—*T. S. Gore, D.L.S., 1903.*

(*East outline.*)—The township is generally hilly on the east boundary. This
51. boundary crosses Turtlelake river at the north boundary of section 19 and 24. The stream is too rapid to be fordable for men at this point, and owing to its soft banks it is not fordable for horses for miles above or below this boundary line. The country from this point south is generally hilly, open prairie with scrub in the ravines and numerous bluffs or small poplar to the east. As one approaches the south side of the township the land is rolling and less hilly. The soil is generally deep black loam with variable light subsoil. Firewood is not very abundant and I do not know of any building timber.—*J. J. Dalton, D.T.S., 1903.*

(*Subdivision.*)—The branch of the Onion Lake trail to Emmaville post office passes through the southwest corner of this township. It is rather a poor road. The soil is black loam and sandy loam, and is suitable for general mixed farming. There is considerable open prairie through the middle of the township, but the eastern and western parts are nearly all covered with brush and poplar scrub, and through the northern and western tiers of sections there is sufficient poplar suitable for building for local use. There is good hay along the small creek running into Turtle river and adjoining small sloughs scattered throughout the township. The water is fresh and generally good. A small creek apparently permanent, and about 10 feet wide and 3 feet deep, flows in from the north in section 33 and through the middle of the township into Turtle river in section 12. Turtle river, about 1 chain wide and 4 feet deep, flows in and out along the east boundary of the township. Climate was wet and cold this summer, but no indications of summer frost were seen. The only fuel is poplar which can be obtained in all parts of the township. There are no stone-quarries and no minerals. There are no water-powers in the township. Prairie-chickens and ducks were the only game seen.—*T. S. Gore, D.L.S., 1903.*

(*East outline.*)—This township is very hilly, with much scrub along the
52. northern boundary, but along its eastern boundary the land is open rolling prairie, with light scrub and a few scattered sloughs for $2\frac{1}{2}$ miles, where the land becomes low, with lakes on both sides of the line. On sections 13 and 18 there

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is a large lake 36 chains across and about a mile and a half long. South of this the land is low and wet for a mile, then it becomes a succession of knolls and ridges to the southeast corner of the township and extending far on each side of the eastern boundary. There are several bluffs of good spruce and poplar timber suitable for building. Wood for fuel is not very abundant here, but may be found to the northeast within a few miles. Soil generally is black loam 8 to 10 inches deep, with a variable but light subsoil.—*J. J. Dalton, D.T.S., 1903.*

(*North outline.*)—Excepting section 36, which is level prairie, the north boundary of this township runs through a rolling country covered with bluffs of poplar 6 inches in diameter, interspersed with small prairie patches, and thick willows around the marshes and lakes. In sections 31, 32, 33 and 34, the soil is a black or sandy loam 6 to 18 inches deep, with a subsoil of clay and gravel. In sections 35 and 36, the soil though lighter is still of good quality. Large boulders of grey granite appear frequently on the surface. A creek enters this township in section 32 and flowing southerly through a narrow valley connects lakes on the north and south side of the base line. Another and more important stream, the outlet of Brightsand lake, in township 53, range 20, crosses the northern boundary of section 35. It empties into another large lake about 3 miles south of the line. These streams and lakes give a good supply of fresh water in these townships, where good hay is also found. It is a good country for stock-raising, as is also the valley of Englishman river in range 22, in which Emmaville is situated. West of the outlet of Brightsand lake the hills rise to a height of 135 feet and are thickly timbered with poplar. A new wagon road from Emmaville crosses this township from west to east at an average distance of 2 miles from the north boundary of the township.—*A. Saint Cyr, D.L.S., 1903.*

(*Subdivision.*)—This is reached by Onion Lake trail from Battleford to Emmaville post office and thence east by my survey trail. The road is fairly good. It is mostly light sandy soil, not much good for anything but a cattle run. The surface is rolling and scrubby with some prairie. The timber is scrubby poplar up to 12 inches in diameter, and scattered all over the township. There is a little hay along the creek through the middle of the township. The water is fresh. There are two good creeks, one through the westerly part of the township about ten feet wide and four feet deep, running two miles per hour; and another one running from the north into lake No. 2 about twice the size of the former. There are two small lakes in the west part of the township with good water and plenty of jackfish and some other kinds of fish. The land is not liable to be flooded, except a small area adjoining the south part of lake No. 2. There are no water-powers. The summer was cool, and summer frosts were not uncommon. Poplar is the only fuel; and is scattered all about the township. There are no minerals and no exposed rock. Duck, and a few prairie-chickens were the only game seen.—*T. S. Gore D.L.S., 1904.*

This township can be reached by an Indian trail which runs through the
53. northern part of it. This trail branches off from the Battleford and Meadow Lake trail and goes south of Brightsand lake. The trail is poor and but little used. The soil is generally a rich black loam, and would be suitable for any of the products of the country. The surface is rolling and much broken by little pot holes with water in them, surrounded by dense willow thickets. It is nearly all covered with a thick growth of poplar and willow and a tangle of various kinds of underbrush. There is a quantity of good poplar up to ten or twelve inches in diameter scattered all over the township; and a little spruce up to fourteen inches in diameter on the

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west half of section 18. There is very little hay; a small quantity could be obtained around sloughs in the southwest part of the township. There are no water-powers. There is plenty of fresh water in sloughs and ponds scattered all over the township. There is a plentiful rainfall and frosts are common in summer, as appears to be the case wherever the country is thickly covered with bush. The only fuel is poplar, which can be had in any part of the township. There are no stone-quarries nor minerals. Deer and ducks were the only game seen.—*T. S. Gore, D.L.S., 1904.*

This township is most conveniently reached by trail from Paynton, a small station west of Battleford on the main line of the Canadian Northern railway from Edmonton to Winnipeg. An excellent trail runs due north from Paynton by way of Mervin, passing along the west side of Brightsand lake. A branch trail runs into this township, while the main trail continues north to Meadow lake. The township may also be reached by trail from St. Walburg, from which place a good trail branches into the Paynton-to-Mervin trail. The soil is clay with a few inches of black loam and is suitable for mixed farming. There are no settlers, although township 53 is well settled. The surface is rolling and timbered with a thick growth of poplar of an average diameter of three inches, but there are large open patches in the northern part of the township and some willow flats. Hay of good quality, both slough and upland, is to be found in the westerly half of the township. There is an abundance of fresh water mainly in sloughs and small lakes, and the supply is sufficient and permanent. There is no water-power. The climate is the same as is general in northern Saskatchewan and there was a light frost in the latter part of August. Green and dry poplar is available for fuel and can be had in abundance. There are no stone-quarries and no indication of minerals. Moose and deer were seen, while partridges, prairie-chickens, ducks and rabbits are plentiful.—*J. J. Stock, D.L.S., 1910.*

A good trail runs from St. Walburg connecting with the Meadow Lake trail in township 56, range 20, about two miles south of Horsehead creek. This trail cuts through the southwest part of the township. The soil is clay with a few inches of black loam and is suitable for mixed farming, but there are no settlers. The north third of this township is heavily timbered with poplar, balm of Gilead and spruce. Section 31 is well timbered with large spruce, while there is good spruce in section 19, and in section 18 both spruce and pine are found. The remainder of the township is timbered with poplar and balm of Gilead of an average diameter of five inches, while jackpine, spruce, birch, tamarack and willow are to be found in all parts of the township. There is heavy alder underbrush. No hay, worth mentioning, grows in this locality. The water is fresh and the supply is permanent, there being a few lakes, several small creeks and numerous muskegs. No water-power is found and no stone-quarries nor indications of minerals were noted. The climate is the same as that prevalent in northern Saskatchewan. Both green and dry wood are available for fuel in any part of the township. Moose, partridges, prairie-chickens and rabbits were seen.—*J. J. Stock, D.L.S., 1910.*

This township may be reached by the Loon Lake trail, which crosses the north-east corner of the township, branching from the Meadow Lake trail from Battleford and Paynton at the south side of Horsehead creek. The Loon Lake trail is fair in the fall, but poor in the spring. The soil is clay with a few inches of black loam and is suitable for mixed farming although there are no settlers. The surface is rolling and is broken with numerous small creeks. This township is well timbered, large poplar and balm of Gilead being found everywhere. Sections 3 to 9

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inclusive, and 6 to 21 inclusive are timbered mainly with large spruce up to twenty inches in diameter, while spruce is to be found almost anywhere in the township. Jackpine, birch and willow are scattered here and there, while tamarack is found in the muskegs which occur in the southwest portion. There is a thick growth of alder underbrush. A small quantity of slough and upland hay grows in sections 25, 26, 34, 35 and 36. There is a large and permanent supply of fresh water. Numerous creeks are found in all parts of the township, while Horsehead creek, which is a stream about forty links wide, two links deep and with an average current of a quarter of a mile per hour, cuts across the northeast corner of the township. The land is not liable to floods and there is no water-power. The climate is the same as that prevalent in northern Saskatchewan. Dry wood is readily found anywhere in the township but there are no stone-quarries and no indication of minerals. Moose, partridges, prairie-chickens and rabbits were seen.—*J. J. Stock, D.L.S., 1910.*

(*North outline*).—The surface of this township is gently rolling, consisting of low ridges separated chiefly by willow sloughs and hay meadows. The soil on the ridges is chiefly clay, though sand occurs in a few places. In the depressions it is black loam. In section 33, the line passes through a clump of heavy spruce and tamarack, some of the spruce being thirty-six inches in diameter, while some of the tamarack reaches a diameter of fourteen inches. The rest of the township is covered chiefly with poplar, with a few spruce up to fourteen inches in diameter in sections 31, 32 and 34. Horsehead creek crosses the line in section 35, flowing north. This stream is about forty feet in width, and at the time of survey (May) was eleven feet deep and had a fairly rapid current. Another stream flows north across the line in section 33. It turns east and runs parallel to the line only a few chains north of it, and flows into Horsehead creek, only a short distance from the line. Along the banks of both these streams are some excellent hay meadows. A cart trail which branches off the Battleford and Meadow Lake road in township 56, range 20, crosses the line in section 35 and goes northwest to Makwa (Loon) lake. This township should be well adapted to mixed farming. Moose appear to be quite plentiful in this vicinity. No water-powers, stone-quarries nor minerals of any kind were noted.—*Wm. Christie, D.L.S., 1909.*

RANGE 22.

The southwest part of this township, namely, sections 3, 4, 5, 6 and the south
49. part of sections 7, 8 and 9, is nearly all in a swampy bottom, broken in many places with little ponds of alkaline water and clumps of poplar, willow and sage brush. The remainder is generally high and dry, covered to about one-fifth with bluffs of young poplar. Biggully creek flows east from the north of section 18 to the south of section 12. The water of this creek is very good, and the gully, in which it flows, varies from sixty to eighty feet in depth, the banks being very steep. The soil of this township is all sand with very little alluvial soil and ranks as third-class, except that of a little plateau on sections 34, 35 and 36, which ranks as second-class, having a bed of sandy loam five or six inches deep on a clay subsoil. The trail from Battleford to Fort Pitt runs across sections 5, 6 and 7. Good water is scarce, especially north of Biggully creek, and the water in the marshes and ponds is nearly all alkaline. Timber is in sufficient quantity for building and fencing purposes. Traces of damage caused by fire are seen nearly everywhere in the township.—*A. C. Talbot, D.L.S., 1884.*

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50. The Onion Lake trail from Battleford runs through the township, and is a fairly good road, with good bridges. The soil is generally a good dark clay loam with clay subsoil, the higher ground rather stony. The surface is rolling, and is about two-thirds prairie and one-third covered with a growth of small poplar and willows. There are a good many small ponds and sloughs with fresh water. The valley of the Saskatchewan is very rough and steep, from 200 to 250 feet deep, and about a mile wide between the upland on either side. It cuts the township from the middle of the western boundary to the southeast corner. The timber is principally scrubby poplar up to eight inches in diameter, with a good deal of dense willow brush. There is a little cottonwood scattered along the south bank of the river that would be suitable for building purposes. A good supply of hay can be obtained from small flats around sloughs. The grass is very long and thick throughout the township, and could probably be made into hay on much of the higher lands. The township is abundantly watered by Englishman river, a rapid stream about 50 links wide and three feet deep; also by the Saskatchewan and numerous ponds. None of the township is liable to be flooded. The climate is variable, but does not appear to be much subject to summer frosts. No water-power exists. The fuel is small poplar scattered throughout the township. No stone-quarries and no minerals were observed. Numerous ducks and prairie-chickens and some deer were seen. This township is suitable for stock-raising in a small way and general farming.—*T. S. Gore, D.L.S., 1903.*

51. The Battleford and Onion Lake trail passes through the southwest corner of this township, and is a fairly good road. In the two most easterly tiers of sections the soil is good, but in the western and middle parts the soil is more sandy and stony. The township is generally best adapted to grazing purposes. The eastern part of the township is timbered pretty well with poplar running from 2 inches to 10 inches in diameter. The middle part is open prairie, and the western part prairie with clumps of poplar and willow. There is a quantity of good hay extending along Englishman river and lakes and many other hay flats around sloughs. There is plenty of water, fresh and permanent, in ponds and lakes, also in Englishman river, which is a rapid stream about 40 links wide and three feet deep. Some of the hay flats in the vicinity of Englishman river are liable to be flooded over quite large areas after heavy rains. There are no water-powers. The summer was very wet and cool. The only fuel is poplar, found more or less on nearly every section in the township. There are no stone-quarries and no minerals. Plenty of ducks and prairie-chickens during the season may be found all over the township.—*T. S. Gore, D.L.S., 1903.*

52. The township is reached by the Battleford and Onion Lake trail. The route of this trail, as surveyed, now branches off in township 50, range 21, and runs to Onion lake via Emmaville post office, which is on the southeast quarter of this township. The road is fairly good in dry weather. The bridge over Englishman river at Emmaville was carried away this spring and I had to replace it by a new one before I could cross with my survey supplies. I came in via Edmonton and down the Saskatchewan in a scow of fifteen tons capacity, and landed all my supplies for the season at a point on the river ten miles southwest of Emmaville. I found the route a very good one by which to get into this part of the country with supplies in the early spring. I took nine days to make the trip down the river; about 200 miles. The soil in this township is generally rather light and sandy, though there is some good sandy loam and black loam in places. It is best suited for mixed farming and stock-raising. The western part of the township is mostly flat, partly open and partly scrubby, and a good deal of the land adjoining Englishman river on the

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west is flooded this year. The eastern half of the township is high rolling land covered with poplar and willow scrub and small poplar, with open spaces. The only timber is the small poplar, scattered about. There is quite a quantity of fairly good hay throughout the central portion of the township. The water is fresh but hard, and is found in ponds and sloughs everywhere this season. But I am informed that seven years ago these were nearly all dry, and Englishman river, which is now six feet deep and 30 feet wide, could be crossed almost dry shod. This river flows from north to south through the township, and runs 5 or 6 miles per hour. It has overflowed a large swamp on sections 33, 34, 27 and 28 to a depth varying from 1 to 10 feet. A small water-power might be developed by building a dam on the river on section 16. There were heavy frosts till June 1st and the locality is said to be liable to summer frosts. The only fuel is small poplar scattered about the township. There are no stone-quarries and no minerals. Ducks and prairie-chickens were the only game seen.—*T. S. Gore, D.L.S., 1904.*

This township lies about four miles north of Battleford and Emmaville trail, **53.** and can be easily reached by wagons from the latter place. There is an old Indian cart trail running through the northern part of the township which goes from Onion lake to Brightsand lake, but it is in bad condition now, much overgrown with brush and little used. The soil is generally clay and black loam, but in many places stony. It is suitable for the usual products of the country. The surface is rolling, about one-third prairie, the balance scrubby, with bluffs of small poplar. The only timber is small poplar scattered about the township. There is considerable good hay in small areas scattered throughout the township. The water is fresh and plentiful in sloughs. Englishman river runs through the township, and is about 25 feet wide and 2 feet deep. It runs about three miles per hour. Very little land is liable to be flooded by it. There are no water-powers. The climate is good, though there is more or less summer frost. The only fuel is small poplar scattered about the township. There are no stone-quarries and no minerals. Ducks and a few deer were the only game found.—*T. S. Gore, D.L.S., 1904.*

This township may be conveniently reached from either Paynton or Lloyd- **54.** minster on the Canadian Northern railway main line. From Paynton there are stage connections once a week to St. Walburg, about sixty miles to the north. St. Walburg is a post office in township 53, range 22, in a flourishing German settlement. From there a trail, that I have followed during the process of sub-division, leads into this township. The surface, being fairly open in the central parts, makes it easily accessible, the trail crossing in a northerly direction. This trail is in good condition and will in all probability be used by Indians and trappers in going to the north during the coming winter. From Lloydminster there are stage connections twice a week to Onion lake, whence the old Battleford trail can be followed eastwards for about thirty-five miles to township 53, range 22, where the trail that I have made leads to this township. The soil in general is a clay loam and most of it is well suited for agriculture. The surface is level or slightly rolling, and broken by a few swamps and muskegs. The township is lightly timbered, principally with small poplar, from four to six inches in diameter. There is also a little spruce and a few jackpine along Englishman river. A good ridge of jackpine is found in section 33. Willow is scattered throughout the township. There is a good deal of open prairie however on the west side and in the central part, and a large part of it could be made suitable for agriculture with little labour. Its proximity to the settlement of St. Walburg, in township 53, makes it more suitable for immediate settlement. The marshes and muskegs are mostly small and could easily be drained in time. Hay

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can be obtained in almost any part of the township in the open patches of prairie or in the sloughs. The water is fresh and the supply permanent. The streams are small and few. Englishman river has its source in a large swamp at the northeast corner of the township and flows southwards across the west side of the township. This is a fine stream from one to three feet deep and from twenty to thirty feet wide and has considerable current in most parts. There are several small lakes in different parts of the township but no very large ones; these contain good water. There is no danger of floods. No water-power of any commercial value could be developed. The climate is a fair average for this part of the Dominion. Light summer frosts are probably experienced. Wood fuel abounds in all parts of the township. There are no outcrops of rocks and no indication of minerals. Game is plentiful and consists of a few moose and deer, which come from the dense woods to the north; ducks, partridges and prairie-chickens; rabbits and muskrats are quite plentiful, there are also a few minks, weasels, &c.—*Adam Fawcett, D.L.S., 1910.*

55. This township may be conveniently reached from either Paynton or Lloydminster on the main line of the Canadian Northern railway. From Paynton there are stage connections once a week to St. Walburg, situated about sixty miles to the north; St. Walburg is a post office in township 53, range 22, in a flourishing German settlement. From here a trail, which I have cut during the process of subdivision, leads across township 54, range 22, which is open in parts, and entering this township at the south proceeds across it in a northerly direction. The road in the township passes through heavy woods but is in good condition and can be easily travelled during winter and summer, as I have bridged the streams and soft places. This trail will in all probability be much used during the coming winter by Indians and trappers. From Lloydminster there are stage connections twice a week to Onion lake and from there the old Battleford trail can be followed eastwards for about thirty-five miles to township 53, range 22, whence the trail that I have constructed leads to this township. The soil in general is a clay loam and in time would be well suited for agriculture. The southern two miles are lightly timbered and open in places; it is ready for settlement at any time. The remainder is densely wooded principally with poplar mixed with birch and spruce. There are some large patches of jackpine and spruce to the north and east. The surface on the whole is fairly level, rolling in parts with a few small abrupt hills. There are a few muskegs and quite a number of large marshes, especially in the central and western parts. Nearly all of these could be drained into the nearby lakes. In the southern portion hay can be obtained from the open parts but it is mostly grown up with willows. In the remainder of the township hay can be obtained only in the marshes and is of an inferior grade. The water is fresh and the supply, permanent. There are very few streams and these are small ones. The lakes, however, contain good fresh water and are distributed over the northern part of the township. Most of the lakes have grassy shores or are surrounded with marshes. Good water can be obtained in the southern part by digging a few feet in the marshes. There is no danger of floods. No water-power of any commercial value could be developed. The climate is a fair average for this part of the Dominion. Last summer frosts were probably experienced. Wood fuel abounds in all parts of the township. There are no outcrops of rocks and no indications of mineral anywhere. Game is plentiful and consists of moose and bears in considerable numbers, a few deer, elk, and minks; rabbits, ducks, partridges and muskrats abound in all parts, and fish, chiefly pike, are found in some of the lakes.—*Adam Fawcett, D.L.S., 1910.*

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This township may be reached from either Paynton or Lloydminster on the Canadian Northern railway main line. From Paynton there is a weekly stage connection all the year as far as St. Walberg in township 53, about sixty miles north. From here a trail, which I have cut during the process of subdivision, leads across township 54, which is partly open, and thence northerly across township 55, to this township. In township 55, and also across this township the road had to be cut through dense woods, but I bridged the streams and soft places so that the road can be easily travelled during summer or winter. This trail is likely to be used this winter and in future by Indians and trappers. From Lloydminster there are stage connections twice a week to Onion lake whence the old Battleford trail is followed eastwards for about thirty-five miles to township 53, where the trail I have constructed is taken to this township. The soil in general is a clay loam and in time will be well suited for agriculture. The township on the whole is fairly level, especially the north half, there being some rolling hills towards the south. The whole township is heavily wooded mostly with poplar and spruce, also some birch, jackpine and tamarack with a good deal of willow. The poplar is from four to eighteen inches in diameter and would average eight or nine inches for the township as a whole. The jackpine is mostly scattered and of good size, from six to eighteen inches in diameter. The spruce is scattered through the poplar and is also found, mixed with tamarack in groves and muskegs. It reaches eighteen to twenty inches in diameter in places. The birch is scattered among the poplar with the exception of a few hills, which are entirely covered with birch. The timber could be well used for pulp wood and in some parts good lumber could be obtained, though not in any large quantity. Hay is found only in a few small marshes and is quite scarce. The water is fresh and fairly plentiful. A few spring creeks are found. In the northwest there are several large wet spruce and tamarack muskegs. There are a few large lakes in the township, which contain good water. Besides these, there are a number of smaller marshy lakes. The streams are not numerous and none of any size are found. The climate is a fair average for this part of the Dominion. Summer frosts are probably experienced. Wood fuel abounds in all parts. There are no outcrops of rock nor any indications of minerals. In places there are a few stones. Game is plentiful. Moose in large numbers, bears and some deer are found. Ducks, partridges and muskrats are plentiful, and fish, chiefly pike, are found in the large lakes.—*Adam Fawcett, D.L.S., 1910.*

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49. The surface is very uneven in the vicinity of Biggully creek, which runs in an easterly direction through the centre of the township. This creek contains good water and is from one to six feet in depth, and from thirty links to one chain in width. The valley, through which it flows, is nearly one mile wide and is at least one hundred and fifty feet below the level of the surrounding country; its course is obstructed in some places by beaver-dams. The trail from Battleford to Fort Pitt traverses this township and affords easy access to intending settlers. There is sufficient timber to serve for fuel and fencing for some years and building timber could be obtained at the Saskatchewan river. The soil for the most part is a sandy loam with subsoil of white clay; it is easily cultivated and well suited for agricultural purposes.—*James McArthur, D.L.S., 1884.*

The northeast quarter of this township is broken by the North Saskatchewan river valley which averages about one and a quarter miles in width and about three hundred feet in depth. The bank on the east side of the valley is rough and broken, with very little brush, while the western bank is generally rough,

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broken and heavily wooded with the exception of section 26, where the bank is a gentle slope and makes a fine approach to the river from the general level of the prairie. A gully commences on the south-east quarter of section 27 and, running easterly, breaks into the river valley on section 23. There is a fine spring on the north east quarter of section 22, and from this a small spring creek flows down through the gully and empties into the river on section 24. The North Saskatchewan river enters the township in section 35 and leaves it from section 24. The current is swift, running about three miles per hour. The north half of the township is gently rolling prairie, in some places level, with occasional bluffs and willow swales. The soil is black loam on a clay subsoil with the exception of a small sandy tract around lake No. 3, which occupies nearly three hundred acres of section 20. The water in this lake is slightly alkaline, but even at low water is fit for use. The south half is high rolling and in some places hilly, the soil being an excellent black loam with clay subsoil. There are numerous bluffs and some willow swales in this portion of the township; the north part of sections 8, 9, 10 and parts of 14, 15, 16, 17 and 18 being nearly covered with a heavy growth of poplar some of which is ten inches in diameter, and will afford an abundance of excellent fuel. Section 6 is broken by two small alkaline lakes, one of which breaks the west limit of section 5. Sections 3, 9 and 10 are broken by an alkaline lake, from the head of which in section 9 some fine hay marshes extend up through the central portion of the section. Section 11 is broken by several ponds of fresh water, some of which extend into section 12. Taken as a whole, I would consider this township well suited to agriculture the black loam averaging about ten inches in depth with a clay subsoil, while wood and water are plentiful. No rock in place was found and but few boulders; the only stone observed being loose fragments along the shore of the river. The trail from Battleford to Fort Pitt enters the township on section 5 and leaves it on the northwest quarter of section 6. There is also an old cart trail which enters the township on section 4 and, diverging from the main trail, leaves the township on section 18.—*Wm. S. Drewry, D.L.S., 1886.*

This township is broken by the valley of the North Saskatchewan river, the
51. banks of which are very rough and broken, and extend generally to the edge of the river. The river enters the township in section 7 and leaves it at the southeast corner of section 1. It averages about twenty chains in width, and its depth is variable, being from five to eighteen feet, with a swift current averaging about three miles per hour. A fine spring creek rises on section 6, township 52, range 23, and flowing south, is joined by two small spring creeks in section 29, whence it flows southeasterly through a deep gully, and empties into the river at the southwest corner of section 15. To this creek we gave the name of Whitesand, as in the valley or gully are numerous hills of white sand. The gully of Whitesand creek commences in sections 32 and 33 and extends through sections 28, 29, 20, 21 and 16, breaking into the river valley along the eastern limit of section 16. The river valley and Whitesand gully divide the township into three distinct portions. South of the river, the surface is rolling, with numerous bluffs, and the soil is black loam with a clay subsoil; this portion, I would consider to be good for both stock-raising and farming purposes. The northwestern part is rolling, and in some places hilly, the surface being covered with a heavy growth of poplar averaging about eight inches in diameter; the soil is sandy loam with sandy subsoil. The timber on this tract will no doubt some day be very valuable for fuel. The central and northeastern parts are fine rolling prairie with few bluffs. The soil is sandy loam with a clay subsoil and I believe will make excellent farming land. Ponds are met with throughout, the water in which is generally fresh. A belt of timber from three to ten chains wide extends along the river on sections 15 and part of 16, a large percentage of which is of suffi-

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cient size for building purposes, running from ten to eighteen inches in diameter. The north trail from Fort Pitt to Battleford enters the township on section 34 and, pursuing nearly a straight line, leaves it on section 24. Game is abundant throughout the township; elk, bears and deer being plentiful, while smaller game is very numerous. This is evidently a much frequented hunting ground, as old camp fires, shelters and signs of Indian encampments were frequently seen.—*Wm. S. Drewry, D.L.S., 1886.*

This township was reached by taking the Hudson Bay Company's old trail
52. from Carlton to Fort Pitt, passing on the south side of Jackfish lake and branching off the Emmaville trail and entering the township in section 13. The trail was dry but the Emmaville branch was very rough. The surface of this township is from rolling to hilly prairie, dotted with clumps of poplar and willow brush, and bluffs of poplar. Sections 6 and 7 are nearly covered with poplar bluffs and scrub. The bluffs will supply good fuel, fencing and rough building timber. Two large lakes appear, one in sections 23, 24, 25 and 26. A large creek from the north runs into this lake in the northeast quarter of section 26 and runs out at the southeast end of the lake. The second lake lies in sections 32 and 33 and has no outlet. Both lakes have been traversed. A large slough or hay marsh runs through sections 10, 16, 20, 29 and 30. A small creek runs westward out of this marsh. Numerous sloughs are found all over the township and in ordinary dry seasons from 300 to 600 tons of hay could be cut in the township, mostly along the creek in sections 26, 35 and 36, and around the slough in the centre of the township. In wet seasons this quantity could not be cut. The soil is a fair sandy loam, mostly sand subsoil, well suited for grazing purposes, but not fit for farming. The water is fresh in all the lakes, creeks and sloughs. There is no timber for lumbering purposes. No minerals nor stone-quarries are found in this township. The climate was wet and cold with frequent frosts in the latter part of August. Ducks and prairie-chickens are plentiful; no deer. A bear was seen on Bear hill in the southwest part of this township. A surveyed trail from Battleford to Onion lake enters the township in the southwest quarter of section 3 and leaves it in the southwest quarter of section 30. The mail trail from Emmaville to Onion lake runs diagonally north-westerly through the northwest quarter of the township, entering in section 13 and leaving in section 33. One rancher was squatted on section 26.—*Wm. R. Reilly, D.L.S., 1903.*

This township is from rolling to hilly, thickly dotted with bluffs of poplar
53. from 3 to 8 inches in diameter, willow and poplar scrub. The heaviest bluffs are found in the northeast corner, but otherwise are pretty evenly scattered all over the township. Bluffs will supply good fuel, fencing and timber, for rough log buildings. This township is very much cut up by creeks, lakes and sloughs. Five lakes were traversed—one on the east boundary in sections 1 and 12; one on the south boundary in sections 4 and 5; one on the west boundary in sections 7 and 18; one on the southeast quarter of section 18, and one on sections 27 and 28. A large creek enters the township at the north in the northeast quarter of section 36 and flows nearly south, leaving the township in section 2 and flowing into a large lake in the township to the south. Another large creek enters the township in the northwest quarter of section 33 and flows nearly south into the lake in sections 27 and 28, then southwesterly to the lake on the west boundary in section 18. The land is very flat along the creeks and on the west side of the lake in section 28 and around the lake in section 18. In favourable seasons a great quantity of hay can be cut all along the creeks and around the lakes mentioned. Many sloughs are found in the south half

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of the township, some of them good hay producers, especially in sections 9 and 10. I would estimate that from 1,000 to 1,500 tons of hay could be cut in this township. The water in all the creeks, lakes and sloughs is fresh. The soil is black sandy loam from 2 to 6 inches deep overlying a clay subsoil on the east side of the township and running into a sandy subsoil to the west. This township is an ideal one for stock-raising purposes, with an abundance of grass, hay, water, fuel, fencing and rough building material, but it is not adapted to farming. No minerals, no stone-quarries and no timber for lumbering purposes are found. The mail trail from Emmaville to Onion lake runs northwesterly through sections 4, 5, 8 and 7. An old trail runs easterly through sections 17, 21, 22, 27, 26 and 25, with a branch from section 27 running nearly north. Ducks and prairie-chickens are plentiful. Some jumping deer were seen on the north of the township, but no other game was noticed. The climate was wet and cold with sunshine and showers alternately, and some frosts. One rancher is squatted on section 18.—*W. R. Reilly, D.L.S., 1903.*

(*North outline*).—The surface of this township is rolling and is much broken by small muskegs and sloughs. The soil is chiefly sand, but clay appears in a few places and it is quite stony. It is timbered with poplar, spruce, jackpine and birch, together with thick scrub. A number of small creeks flow north across the line in sections 33, 34, 35 and 36. Moose are quite plentiful in this vicinity, and a few partridges and prairie-chickens were also seen. No water-powers, stone-quarries nor minerals were noted.—*Wm. Christie, D.L.S., 1909.*

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The portion of this township lying south of Biggully creek, being level and fertile, may be said to be first-class, and the portion lying north of the creek, being uneven and having a gravelly soil in many places, can be considered only second or third-class. Biggully creek is from thirty links to one chain wide, and the valley, through which it flows, varies from half a mile to a mile in width. A belt of poplar timber intersects the southern tier of sections, and there are also some bluffs of the same timber along the eastern outline, but with these exceptions there is not very much timber to be found south of Biggully creek. There are, however, some clumps of poplar in the northwestern portion of the township. An abundant supply of water can be obtained at all seasons of the year. The trail from Battleford to Fort Pitt passes within one mile of the northeastern corner of the township.—*James McArthur, D.L.S., 1884.*

This township is broken along its northern outline by the valley of the North Saskatchewan river and about sixty per cent of the township is extremely rough and broken. The southwest corner is open level prairie and is nearly all good hay land. Hundreds of tons of hay could be procured in this quarter, which is broken by a large lake, the water in which contains some alkali, but not in sufficient quantities to render it unfit for the use of stock. The south central portion of the township is hilly and partially wooded, but the soil is good and produces fine grass, vetches, &c. The southeastern and eastern portions are rolling prairie with few bluffs and are excellent farming lands. A fine lake with a hard sandy beach, to which we gave the name of Pike lake, lies along the north limit of sections 2 and 3. The water in this lake is fresh and good, and fish seem to be plentiful in it, and of good size, as we obtained a pike measuring thirty-four inches in length. A fine spring was found on the southwest quarter of section 26, just north of the old cart trail, which traverses that section. The northeastern and northern parts are extremely

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rough and broken, being heavily wooded and traversed by numerous gullies. On sections 27 and 28 a large area of building timber is found, some of it being sixteen inches in diameter. Sections 35 and 36 are traversed by a deep gully through which flows a fine spring creek, which leaves the township from section 35. Another small spring creek rises on section 27 and, flowing northwesterly through a deep gully on section 33, discharges into the Saskatchewan river. Section 35 is almost wholly occupied by a hill rising nearly five hundred feet above the river and is extremely rough and broken. The rest of the township is of a very broken hilly character, having the north slopes of the hills covered with brush, and numerous small deep ponds of fresh water lying between the hills. Hay marshes are numerous and I believe this township to be very valuable for grazing purposes. The soil, even on the tops of the hills, is good and produces most excellent grass, vetches, &c., which would afford good grazing. The soil throughout is black loam with clay subsoil. The main trail from Battleford to Fort Pitt enters the township in section 1 and, pursuing a generally direct course, leaves it from section 30. There is also an old cart trail, which enters the township in section 13, and, winding among the hills through the northern part, leaves it from section 31.—*Wm. S. Drewry, D.L.S., 1886.*

The surface is generally hilly and broken, and mostly covered with thick
51. poplar and willow. The average diameter of the poplar is from three to eight inches. There are a very few small birch and spruce. The southwest corner of this township is rolling prairie with scattered bluffs of poplar and willow. The soil is a good sandy loam, first and second class. The North Saskatchewan river crosses this township. There are two islands in the river, which are covered with poplar averaging from six to twenty-four inches in diameter. The banks of the river are of an average height of one hundred and fifty to two hundred feet, and, north of the river they are very much broken. The river was low at the time of the survey and numerous sand-bars were showing, which are movable and therefore a hindrance to navigation. There are some large lakes and numerous ponds in this township, all of which have good water except lake No. 1, which has a slightly alkaline taste.—*Elz. Boivin, D.L.S., 1886.*

The sections on the north and west side of the township are rough, broken
52. and hilly; the rest of the township is rolling. The face of Bear hill cuts across sections 33, 34, 35, 36 and 25. The ground gradually rises from the lake and creek on the north to a height of 300 feet. The face of the hill is thickly covered with poplar from four to eight inches in diameter with heavy underbrush. About 60 per cent of the township is covered with poplar bluffs and scrub with openings of prairie. The west side of the township is more open than the east. A few clumps of spruce 6 to 12 inches in diameter grow along the creek in sections 32 and 33. The timber in the bluffs in this township is not any larger (6 to 10 inches in diameter) than in the townships on the east and north of it, but the bluffs are much larger and thicker. The largest bluffs are in sections 22, 23, 26 and 27. The bluffs will furnish immense quantities of fuel, fencing and rough building material. The soil is a rich black loam, 4 to 6 inches deep with mostly clay subsoil, classes second, third and fourth, and with the exception of the sections on the north and west sides of the township, is very good for farming purposes. The clearing of the land would not involve a great deal of labour. There are a number of sections in the interior of the township with scarcely a foot of waste land in them. A large slough in sections 9 and 10 and one in the northeast corner of section 11 will in drier seasons than this, furnish a great quantity of hay. A number of small sloughs are found in the township that

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will furnish hay. Red Deer river flows southward through sections 31 and 30, and Little Red Deer westward through the north part of sections 33, 32 and 31. A large lake on the north side of sections 34 and 35 has been traversed. The Saskatchewan enters the township in the southwest quarter of section 18, curves southward through the west half of section 7 and out of the township, cutting the northwest corner of section 6. The water in the sloughs, lakes and creeks is fresh. The trail from Battleford to Onion lake enters the township in the southeast quarter of section 25, runs northwesterly through sections 25, 36, 35 and 34, leaving the township just west of the quarter post on the north boundary of section 34. There are no minerals nor stone-quarries and no timber for lumbering purposes. October was a very fine month, with very little rain, bright warm days and not much frost for the season. Prairie-chickens and rabbits were very plentiful, frequent tracks of bears, a few jumping deer and a couple of elk were seen along the river.—*Wm. R. Reilly, D.L.S., 1903.*

(*East outline*).—The land on each side of the east boundary is open and
53. rolling with numerous small sloughs and ponds. Towards the north it is more rolling and even hilly with beautiful slopes of prairie. There are a few clumps of poplar, some of which is sufficient for building and a fairly good supply of fuel. On sections 13 and 18 is a nice lake, evidently deep, with a large marsh extending to the northwest, and also another to the east of it. The soil is generally deep black loam, with light sandy subsoil, and three creeks running through this township in a southwesterly direction, supply plenty of fresh water.—*J. J. Dalton, D.T.S., 1903.*

(*Subdivision*).—This township is rough, broken and hilly; the north half is pretty well covered with bluffs of poplar, willow and poplar scrub, with a few spruce trees along the creek in sections 33 and 34. The south half is thickly dotted with poplar bluffs and scrub covering about one-fourth of the surface, the remainder being open prairie. The bluffs will supply timber for fuel, fencing and logs 6 to 8 inches in diameter for rough buildings. The soil of the south part of the township is a light sandy loam with sand subsoil, the north part a good black loam four to six inches deep, with sand and clay subsoil. It is fair pasture land in the south and good in the north, but not suited for cultivation. Three lakes were traversed, one in sections 15 and 16, one on the east boundary of sections 12 and 13, and one on the south boundary in sections 2 and 3. The stream flowing westward out of this lake is known as Little Red Deer river, after it passes through a slough and out of the township in the southeast quarter of section 4, re-entering the township and joining the Red Deer river in the southeast quarter of section 6. Red Deer river enters the township in the northwest quarter of section 34 and flows southward through sections 34, 33, 28, 21, 20, 17, 8, 7 and 6. This is a rapid stream from 25 to 40 feet wide, 2 to 4 feet deep. By building dams it could be used in several places as a water-power in the south part of the township. The valley is too wide in the north part to make use of the power, with outlay in proportion to its value. A small creek rises in a marsh in sections 24 and 25, runs westward to the lake in sections 15 and 16 and out of the west end of this lake, joining Red Deer river in the south part of section 17. A large creek 15 feet wide and 2 feet deep, with a strong current, flows out of the lake on the east boundary southward through section 12 and into a large slough in section 1 and through the slough into the lake in sections 2 and 3. Several small lakes and sloughs are scattered all over the township. The water is fresh in all creeks, lakes and sloughs. Hay is not as plentiful as in the township to the east of this one; from 200 to 300 tons could be cut in most seasons, the greatest quantity in sections 13 and 14 and in 1, 2 and 3. Minerals, none. Stone-quarries, none. Timber for lumbering purposes,

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none. The trail from Battleford to Onion lake enters the township just west of the quarter post on the south boundary of section 3, crosses the Little Red Deer river at this point by a bridge, runs northwest through sections 3, 4, 9, 8, 7 and 18, crossing the Red Deer river by a bridge in the northeast quarter of section 18. The mail trail from Emmaville to Onion lake enters the township, crossing the creek in the northeast quarter of section 12 and runs westward through sections 12, 11, 10 and 9, joining the Battleford and Onion Lake trail on the east boundary of section 8. First part of September was wet and cold, latter part bright and fine. October bright and warm with frosty nights. Prairie-chickens and rabbits are plentiful, with some jumping deer in the north of the township. One rancher is squatted on section 15.—*Wm. R. Reilly, D.L.S., 1903.*

(*East and west outlines*).—This township is not so favourably conditioned
54. as the township to the south. It is rolling and open to the south and in the north is rough and scrubby with bluffs of poplar. Muskegs and sloughs are numerous. The soil, black loam or leaf mould, is very shallow, not averaging more than about 2 or 3 inches. There are numerous bluffs of poplar that would answer for building purposes, though more or less stunted. There is a stream 50 links wide and 4 feet deep running south through the centre of the township.—*J. J. Dalton, D.T.S., 1903.*

(*Subdivision*).—This township can be reached by good roads from North Battleford, Paynton or Lloydminster stations, there being good ferries north of the latter places. There is a good dry wagon trail running from section 1 to section 34. The soil is clay or white marl overlaid with a layer of black loam and appears suitable for agriculture. Big Red Deer creek runs from north to south from section 33 to section 3, dividing the township down the centre by a valley ranging from one hundred and ten feet to two hundred and fifty feet in depth. This creek is about forty feet wide and two feet deep. The bottom is generally rocky, but there are no rapids suitable for water-power. The water is good. There are not half a dozen sloughs outside this valley. The township is covered with poplar, except towards the northwest where there are stretches of willow scrub. The timber is suitable for house logs, fence rails and fuel. To the west of the creek the land is level, but on the east it is more broken. There is no hay, minerals, quarries nor coal visible. There was a frost early in August in the valley of the creek, but this may be exceptional. Prairie-chickens and ducks were plentiful, but four-footed game was scarce, the only specimen seen being a bear. Deer tracks were abundant after snowfall. There were no gophers nor badgers. The cattle of the settlers to the south found splendid grazing in this township, and were of good quality and in good condition. Settlement extends up to the south boundary, but there were no squatters in this township.—*R. C. Laurie, D.L.S., 1909.*

This township can be reached by good roads from the Canadian Northern
55. railway stations at North Battleford, Paynton and Lloydminster, there being good ferries north of the latter places. From the first two places a good wagon trail enters in section 2 and from Onion Lake settlement, in section 7, meeting in section 10, and running north through sections 15, 21, 28 and 33. The soil is clay, overlaid with a thin layer of black loam and appears suitable for agriculture, judging from the heavy growth of vegetation everywhere. A creek which widens into a lake in the northwest corner of this township, emerges again in section 17 and runs through sections 8, 9 and 6. The creek is about forty feet wide and averages a foot deep with some small rocky rapids. The valley varies from seventy feet deep at the north to one hundred and ten feet at the south boundary, but is narrow with very

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steep sides. The remainder of the township is slightly rolling. Along the north and west boundaries there is continuous poplar, but the remainder of the township is covered with willow scrub. The poplar is suitable for house logs and fence rails. The western part of the muskeg that lies in parts of sections 11, 12, 13 and 14 would produce hay if drained, and there is also hay around the lake in sections 15 and 16. Prairie-chickens were very plentiful, but four-footed game was scarce. There were no gophers, badgers nor coyotes, but many deer and moose tracks were seen. There is a small Indian village on the southwest quarter of section 2, consisting of three families of fifteen persons who have lived on the land for the past four years. Good water is plentiful in the lakes throughout the township, but there are no water-powers, minerals nor quarries.—*R. C. Laurie, D.L.S., 1909.*

This township can be reached by good roads from the Canadian Northern
56. railway stations at North Battleford, Paynton and Lloydminster, there being good ferries north of the latter places. A good wagon road runs north through section 4 to section 6, where it turns west leaving the township in section 18. The soldiers trail to Loon lake built in 1885, branches in section 20 and runs north-east through section 34. Big Red Deer creek runs south through the west halves of sections 6 and 7, and a small creek runs through a series of muskegs and lakes from section 12 to section 19. A large lake known as 'Little Fishing' lake lies in the northwest corner of this township, and a number of smaller lakes are scattered throughout the south four miles. The northeast portion has numerous sloughs, but all were dry at the time of survey and could have been cut for hay. The township is entirely wooded with poplar, spruce and jackpine. The soil appears suitable for agriculture except on the jackpine ridges which are sandy. The timber is not suitable for mill purposes, but would make good ties. The poplar is suitable for house logs and fence rails. Ducks and partridges were plentiful and a number of moose were seen. There are no water-powers, minerals nor quarries in the township.—*R. C. Laurie, D.L.S., 1909.*

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This township is broken by a valley known as the Biggully, which averages
49. about half a mile in width and one hundred feet in depth. Biggully breaks into the township on section 30 and traversing it in an easterly direction, leaves on section 24. About one-third of the township lies north of the gully. Several small gullies break into Biggully and in these, small spring brooks are generally found flowing into Biggully creek, which winds through the valley of Biggully in an easterly direction. Biggully creek I found to be dry with the exception of small pools, where the small spring brooks fall into it; and in the notes I have therefore given no depth nor rate of flow of current, but from the nature of the creek bed I should judge, that in ordinary years, when there was no extreme drought, as in this year, the creek would be about ten feet wide and three feet deep with a sluggish current. Along the creek in the valley of Biggully there is a heavy and abundant growth of good hay, and on the southern bank is an abundance of poplar, suited for fuel and fencing. The northern part of the township is rolling bluffy prairie, the soil being black loam with clay subsoil. Numerous small hay marshes and ponds of fresh water are scattered throughout this portion of the township which, together with Biggully, I would consider most valuable for stock raising. That there is good shelter, feed and water is best evidenced by the fact that elk are very numerous throughout. The central portion of the township south of Biggully is level prairie

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with occasional poplar bluffs and willow swales, and is well adapted to agriculture, the soil being an excellent black loam with clay subsoil. Timber of sufficient size for building purposes is to be found in the small gullies, and in the gully breaking the northeast quarter of section 22 a few spruce from ten to sixteen inches in diameter were found. The southern third of the township is high and rolling and with the exception of the southwest corner, is heavily timbered with poplar and some willows, the poplar being from three to ten inches in diameter. The soil is black loam with clay subsoil and will be excellent land for farming purposes when cleared of brush, which can be easily done. The trail from Fort Pitt to the telegraph trail crosses the southwest corner of the township, entering it on section 18 and leaving it on section 4. No rock in place was found, but some immense boulders, containing as much as one hundred cubic yards each, were found in the small gully on section 22.—*Wm. S. Drewry, D.L.S., 1886.*

50. The surface is very much broken by hills from one hundred to one hundred and fifty feet in height, and deep valleys running in all directions. The soil is a good black loam with yellow clay subsoil, which absorbs the moisture, leaving the ground hard even after heavy rain. Poplar bluffs are found on the north side of many hills, but only heavy enough for fencing and fuel. The water is good in the numerous small ponds and marshes. The grass, though short and scant, in many places is excellent for grazing.—*Henry Carre, D.L.S., 1884.*

51. The surface of this township is divided into two parts by a range of very high hills, ranging from a hundred to a hundred and seventy-five feet above the valleys and bottoms of deep ravines. Through the northeast corner flows the North Saskatchewan river in a deep and wide valley, about a hundred feet below the general level of the country. The southwest corner is broken and rolling. Numerous ponds and a few large lakes and high hills vary the surface of the country. The soil is composed of a layer of good black loam from five to ten inches in depth, with a yellow clay subsoil. The grass is good for pasture, being short and sweet, but there is scarcely any hay land. The timber consists of a few detached clumps of small-sized poplar from five to six inches in diameter with large patches of scrub and dense willow thickets. A large portion of this township is unfit for cultivation, but is excellent grazing land.—*Henry Carre, D.L.S., 1884.*

52. With the exception of the sections adjoining the river, this township is not as hilly as the one to the west, but the bluffs are more frequent and contain larger timber. The North Saskatchewan river enters the township in the northwest quarter of section 33 and runs southeasterly, leaving in section 13; it then makes a quick bend and enters the township again in section 1, running southwesterly through the section. The south or right bank is very rough and broken throughout. It slopes back from the river on an average of about one-third of a mile, reaching an elevation of about two hundred feet above the water, and with the exception of section 33 is pretty well covered with poplar bluffs, affording a quantity of fencing, fuel and rough building timber. The north or left bank slopes gently back for about half a mile and is but little broken, and about half the height of the opposite bank. The width of the river varies from ten to twenty-five chains. In the early part of the summer it appears to be very easily navigated, but as fall approaches, sand bars daily appear, making navigation rough and difficult. The soil is principally a rich sandy loam about ten inches deep with a clay or sandy subsoil, and is generally second class. Besides this river, there is a plentiful supply of water in the many ponds

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throughout, in most of which the water is fresh and good. A fine spring creek enters the township in the southeast quarter of section 25 and runs southwesterly across section 24 into the river. The banks on either side are high and afford a splendid opportunity of utilizing the water. I would estimate the water at dry time to maintain a flow of sixteen inches over a weir eight feet wide. The great draw-back to farming in this part of the country is summer frost, and if this was not an exceptional season, grain growing would be very risky, as ice was formed every month of the summer and an exceptionally hard frost, forming three-eighths of an inch of ice, occurred on the night of the fourteenth of August.—*Wm. R. Reilly, D.L.S., 1884.*

The North Saskatchewan river enters this township through section 19, and
53. after making a sharp curve in sections 21 and 16, leaves from section 4. South of the river the land is gently rolling prairie with scattered bluffs of poplar and willow. The south or right bank of the river slopes gently back for about half a mile, where it reaches an elevation of about a hundred feet. North of the river is hilly, broken and covered with poplar, scrub willow, a few birch, together with a few clumps of spruce. The north or left bank of the river is rough and broken, and slopes back for about a mile, where it reaches an elevation of about two hundred feet. Openings of prairie are found principally on the east and west limits of the township and close to the banks of the river. There are some quagmires and muskegs in the northern part. The two Pine creeks run to the river and each may give in dry time an overflow of over ten feet wide and fifteen inches deep. The banks on either side of these creeks are very high and are generally wooded with spruce averaging fifteen inches in diameter. The first Pine creek takes its water in a big muskeg, situated in section 36, and the other one in another big muskeg, in section 33. Frenchman butte, which lies in sections 23 and 24, reaches an elevation of about one hundred and sixty feet over the general level of the country. The soil throughout is a fair layer of sandy loam over a clay or sandy subsoil, and is generally second class.—*Elz. Boivin, D.L.S., 1887.*

A good trail connecting Onion lake and Island lake passes through this
54. township. It enters in section 18 and continues northeasterly through sections 18, 19, 20, 28, 33 and 34. The Battleford to Onion Lake trail passes through sections 4, 5, 7 and 8. This township can be described as gently rolling. The southern two-thirds is covered by light scrub, and in places is quite open. Considerable prairie occurs in and about a ravine, which is about a mile wide and passes through sections 25, 23, 15, 10 and 3. The northerly third is covered with thick bush, composed chiefly of poplar up to six inches in diameter with underbrush. The soil is somewhat poor and consists generally of two or three inches of black loam with a subsoil of sandy or stony clay. The township is best adapted to grazing. A few good quarter sections could be found suitable for grain growing or mixed farming. The only hay lands comprise about two hundred acres and are situated on sections 5 and 6. There is a fair supply of good water. Economic minerals do not occur, neither are there stone-quarry materials. Game is scarce. Summer frost did not occur so far as could be ascertained.—*R. H. Knight, D.L.S., 1909.*

(*East outline.*) To the south of this township is slightly rolling, with a good deal of wet land and scrub. The soil is very shallow, being only two or three inches of leaf mould or black loam on a clay subsoil. There is about three miles of solid poplar woods running from section 13 to section 36, but the north half of section 36 is steep prairie hills. This is not a desirable locality for any purpose that I know of. This township may be arrived at by following along the Onion Lake trail and then turning to the north.—*J. J. Dalton, D.T.S., 1903.*

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Two good trails from Onion lake and Lloydminster pass through this township. One of these enters the township in section 2 and runs in a northerly direction along the east side of Sidney lake. The other enters section 5 and runs in a northerly direction along the west side of Sidney lake. The land in the southeasterly part of the township and south of Sidney lake is nearly level, and the soil is fairly good. The bush is somewhat light, consisting of poplar and would be easily cleared. That portion west and southwest of Sidney lake is somewhat rolling and is broken by muskegs, lakes and small sloughs. The soil consists of about two inches of black loam with a hard or stony clay subsoil. This last mentioned portion of the township is covered with a thick growth of poplar and some scattered birch. Some spruce and tamarack timber is found in the muskegs, and in sections 34, 35 and 36, there is some good jackpine timber. Hay could be cut around the shore of Sidney lake during dry seasons, but otherwise no hay grows. Good water is plentiful. There are no economic minerals, nor are there any stone-quarries. The climate is good and summer frosts were not noticed during the survey. Game is somewhat scarce.—*R. H. Knight, D.L.S., 1909.*

(*North outline*).—This township is rather hilly and rough and is broken by numerous muskegs and sloughs. Two lakes were crossed by the line in this township. The first one, which was crossed in section 32, is about four miles in length from northeast to southwest by about two miles in width. The north end extends about half a mile north of the line. The second lake was crossed in sections 35 and 36; it is about three miles in length from north to south and about one and one-quarter miles in width. The line crosses this lake about the middle. A small creek flows south of this lake. A pack trail crosses the line in section 35. Sections 31, 32, 33 and part of 34 have been burned over and are grown up with scrub poplar and willow. A ridge of green poplar, spruce and jackpine up to ten inches in diameter occurs in sections 34 and 35, and along the east shore of the lake in section 36 is a strip of thick small spruce. The soil on the ridges is mostly all sand and is very stony. No water-powers, stone-quarries nor minerals were noticed in this township.—*Wm. Christie, D.L.S., 1909.*

(*Subdivision*).—A good trail from Onion lake and Lloydminster enters the township in section 2 and passes through sections 3, 10, 15, 22, 27, 34 and 35. This township can be described as gently rolling, though the northeasterly portion is inclined to be hilly. The area of land is greatly reduced by Bronson and Peck lakes. The soil consists of about three inches of black loam with a clay subsoil, and the land throughout is covered with bush ranging from scrub to timber up to fifteen inches in diameter, but the westerly half is covered with poplar up to eight inches. The easterly half is covered with a mixed bush of poplar and jackpine ranging from scrub to timber fifteen inches in diameter. There are many lakes, the water of which is good and permanent. An abundance of hay can be cut around Bronson lake. If the water of this lake was lowered two feet, an additional six hundred acres of hay lands would be thereby obtained. The lake in sections 4 and 9 is very shallow and in low water much hay could be obtained around it. Economic minerals or stone-quarry materials are not apparent. Game is plentiful. Summer frosts do not occur.—*R. H. Knight, D.L.S., 1909.*

RANGE 26.

This township is thickly covered with bluffs of small poplar and willow. The willow, however, predominates, and the poplar is small and of little use except for firewood and rails. Altogether there is not so much timber in this township as in the one adjoining it to the west, and I would respectfully recommend

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that the timber be reserved for settlers. The soil is excellent and throughout it has been ranked as first-class. The country is covered with a growth of luxuriant grass, and it would be suitable either for farming or stock-raising, especially the latter, as there are plenty of hay meadows. The township to the north is traversed by Biggully creek, which in places becomes widened into lakes, one of which is located in this township. This creek is about two and a half feet deep with a sluggish current, and banks averaging about seventy-five feet in height.—*Thos. Drummond, D.T.S., 1884.*

The south and east halves of this township are very much broken by high
50. hills, deep valleys and ponds. The northwest quarter is more level, though still much broken by large lakes, ponds and hills. The soil is a good black loam from four to ten inches in depth overlying a fine, yellow clay subsoil. There are some small clumps of poplar from four to five inches in diameter scattered over the surface. Large patches of poplar and willow brush cover a good portion of the south half. The grass is short and sweet on the hills, but there is little or no hay to be found except in one or two small marshes. Water, plentiful and good, is found in large lakes, ponds, marshes and in Stony creek, which flows in a deep wide valley through the southwestern corner of the township.—*Henry Carre, D.L.S., 1884.*

The northern third of this township is a hilly prairie with a few scattered clumps of poplar and willow brush. There are many small lakes and sloughs, some of which are alkaline. The soil is a sandy loam with a clay subsoil. Prairie-chickens, coyotes and muskrats were seen in small numbers. There was no indication of minerals.—*T. A. Davies, D.L.S., 1907.*

Of all the townships included in my survey, this one on the whole presents
51. the most rugged appearance; sections 15, 16, 17, 34, 35 and 36 being the roughest and unfit for cultivation. The remainder is hilly, but the slopes are long and not very steep and therefore will not be a great hindrance to cultivation. Throughout the whole township, bluffs of poplar and other small brush intervene, occurring more thickly in sections 8 and 17, in some of which, timber large enough for rough buildings is found, but only to a very limited extent. More or less firewood is found in nearly all the bluffs. A very remarkable feature is the situation of the bluffs, being with few exceptions on the north side of the slopes, even where the south or sunny side is sheltered, and the north exposed to the full sweep of the wind. By observing this feature of nature, a lesson may be learnt well worth attention when making attempts at fruit or forest culture. The soil is of fair quality, being clay loam and sandy loam intervening, with either a clay or sandy subsoil, which supports a good growth of grass and is generally good grazing land, ranking as second and third-class. Water is abundant in the many lakes and ponds throughout the township, nearly all of which is fresh and good. A quantity of hay could be cut around many of the ponds. An old trail enters the township in section 4, runs north and passes out in the northwest quarter of section 33; it is but little travelled.—*Wm. R. Reilly, D.L.S., 1884.*

This township is hilly prairie with a few scattered clumps of second growth poplar and willow brush. The soil is a sandy loam with a clay subsoil. Small lakes and sloughs are numerous, some of which are alkaline. Ducks, prairie-chickens, coyotes and muskrats are to be seen. There was no indication of minerals. Two trails lead into the township from Lloydminster. There was one English settler located in section 28, owning a few head of cattle. He had apparently been in the country for a short time, as improvements on his quarter section were limited to about fifteen acres of ploughed land, besides his house, and a shelter for the cattle.—*T. A. Davies, D.L.S., 1907.*

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This township is hilly prairie with a few scattered clumps of second-growth
52. poplar and willow brush. The soil is a sandy loam with a clay subsoil and is first-class in the quarter sections adjoining lake No. 11. Sloughs and lakes are numerous, a few of them being alkaline. Two trails lead into the township from Lloydminster. Ducks, prairie-chickens, coyotes and muskrats were seen. There were no indications of minerals.—*T. A. Davies, D.L.S., 1907.*

This township presents a very rough appearance, the two southern tiers of sections being very rough and broken, especially sections 1, 2, 3, 10, 11 and 12, which are so rough as to be entirely unfit for cultivation; the remainder is hilly but not unfit for tilling. Bluffs of poplar and willow are scattered throughout, occurring more thickly on the southern and northeastern sections. In the many ravines in sections 10 and 11, a quantity of dead wood is found, which has been killed by fire, but will make good fuel. Along the slope on the north parts of sections 10, 11 and 12, a heavy growth of poplar and willow brush occurs, but not large enough to be of any use. Ample timber will be found throughout the township to supply the needs of first settlers. The soil throughout is generally good, being about half clay loam and half sandy loam, with a clay or sandy subsoil; it supports an excellent growth of grass, and along and south of the valley extending across sections 16, 15, 14 and 13, an abundance of wild pea and vetch vines grow, making excellent grazing quarters. A beautiful fresh water lake lies in the southwest quarter of the township and numerous other lakelets and ponds are scattered throughout, in all of which the water is fresh and good. A trail from the south enters in section 4 running north and leaving the township at the northeast corner of section 32; it is but little travelled. The main trail from Battleford to Fort Pitt runs diagonally across the northwest quarter of the township.—*Wm. R. Reilly, D.L.S., 1884.*

Saskatchewan river flows through this township from southwest to north-
53. east, dividing it almost equally. The northern part is again divided by the valley of Pipestone creek, a stream of pure water from one to three feet deep, and eight feet wide, flowing approximately two and one-half miles per hour. The country to the west of Pipestone creek is rough and broken with small lakes, sloughs and marshes which are mostly alkaline. Spruce, tamarack and poplar, two to ten inches, and willow bush grow in large clumps. That part to the east of Pipestone creek is rolling, with clumps of poplar and willow bush. There are a few small sloughs and marshes. The soil to the north of the Saskatchewan is a sandy loam with sand subsoil. Good wild hay grows abundantly. To the south of the Saskatchewan the country is hilly and broken with clumps of poplar and willow bush. The sloughs and lakes are not so often alkaline as in the northern part. The soil is a sandy loam with a clay subsoil. There is plenty of good wild hay. Wheat and oats were grown in small quantities. Game consists of ducks, prairie-chickens, coyotes and a few deer. There were no indications of minerals.—*T. A. Davies, D.L.S., 1907.*

The main Battleford to Onion Lake trail passes northwesterly through the
54. central part of this township and a second Battleford to Onion lake trail passes in a westerly direction through the southerly part. The southerly half of the township is prairie land, nearly level and has scattered bluffs of small poplar. It is well adapted to grain growing. The soil consists of six or eight inches of black loam over a clay or sandy clay subsoil, but the subsoil in sections 2, 3 and 11 is somewhat gravelly. Sections 13, 14, 15, 21 and 20 contain considerable poplar bush. North of these sections the land is covered by poplar bush, varying from light scrub to thick bush up to six inches in diameter. There are openings of considerable

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size towards the northwesterly part of the township. The soil in the northerly parts is not as good as that towards the south. The surface also is somewhat broken. A large ravine passes through sections 33, 28, 22, 23 and 14. There is an abundance of hay lands. During 1909 about one thousand tons of hay were cut from parts of sections 1, 11, 9, 8, 16, 17, 20 and 29. Two creeks running through the township will be the chief source of good water. These are Oldman and Pipestone creeks. The waters of the lakes in sections 9, 10 and 11 and the south part of 22, are somewhat alkaline. Economic minerals do not occur.—*R. H. Knight, D.L.S., 1909.*

This fractional township consists of about twenty-seven sections. A good
55. wagon trail between Onion lake and Island lake passes through it. The trail enters in section 19 and passes northerly through sections 20, 29 and 32. Three ravines, which run in the general direction of north and south, cut this township badly. One ravine, about seventy-five feet deep and one-half mile wide, cuts through sections 12 and 1; another of about the same description passes through sections 27, 22, 15, 10 and 4, and a third, about one hundred feet deep, cuts through 32, 28, 29 and 21. The township is covered by a thick poplar bush with timber about six inches in diameter. There is a dense undergrowth of willow and hazel scrub. Some small areas of poplar up to fourteen inches in diameter are found and also some scattered bluffs of spruce and jackpine of a second quality. About fifty acres of tamarack timber up to twelve inches in diameter are found in the first mentioned ravine. The soil consists generally of two inches of black loam over a hard stony clay subsoil. This subsoil is so hard that it is impossible to till the land and it is good only for grazing purposes. Each of the three ravines contains good water. No economic minerals nor stone-quarry materials are apparent. There is no game.—*R. H. Knight, D.L.S., 1909.*

This township is accessible by a good trail from Onion lake. At Onion lake
56. there is a Hudson Bay trading post, a Roman Catholic mission, an Anglican mission and a government telegraph office. The population of the village is about one hundred and fifty. Onion lake is connected with Lloydminster on the Canadian Northern railway by an excellent wagon trail. The trail from Onion lake enters the township in section 5, and passing through sections 5, 9, 16, 21, 28, 27 and 34, continues north to Island lake. The surface is somewhat rolling or hilly with numerous small sloughs and is covered by bush. The trees vary in size, but poplar of about six inches diameter predominates. There are areas of about one hundred acres scattered throughout the township where poplar grows up to ten inches in diameter, and areas of the same extent of jackpine of a second rate quality ranging up to eighteen inches in diameter. There is also a limited amount of spruce timber. Throughout there is much willow underbrush, which was a great impediment in opening out the section lines. Muskegs of small area were seen. The soil consists of about two to four inches of black loam with a heavy clay subsoil containing small stones. Mixed farming might be carried on in this township, but I consider it better suited for a forest reserve. There are a few hay sloughs but they are of little use as a source of hay. There is an abundance of good water. Economic minerals are not apparent. Game is plentiful.—*R. H. Knight, D.L.S., 1909.*

(*North outline.*)—In the vicinity of the base line this township is somewhat rough and hilly, and is broken by numerous muskegs and sloughs. The line crosses a small lake in section 31, and a small creek flows north across the line in section 33. A wagon road leading from Onion lake to Ministikwan lake,

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crosses the line in section 34. The west half of the township as seen from the base line is covered with poplar, spruce and jackpine. Some of the spruce has attained a diameter of sixteen to twenty inches. In the east half of the township the timber has nearly all been destroyed by fire, only small patches of green timber being left. A growth of small poplar and willow has sprung up. The soil on the high ground is leaf mould a few inches in depth on a clay or sand subsoil. Where the surface has been burned over the leaf mould has been burned off, leaving nothing but the sand or clay. No water-powers, stone-quarries nor minerals were noted in this township.—*Wm. Christie, D.L.S., 1909.*

RANGE 27.

This township is thickly covered with bluffs of small poplar and willows.

49. The poplar is for the most part small and of little use except for firewood and rails; there are, however, several bluffs from which good building timber could be taken out, but it is on the whole scarce, and I would respectfully recommend that the timber be reserved for the use of settlers.

The soil in this township is of excellent quality, and it is ranked throughout as first class, with the following exceptions, the east half of section 7 and the west half of section 8, which are second class. The country is covered with a luxuriant growth of grass, and is well watered by numerous ponds and lakes of good fresh water. This would make the township very suitable either for farming or stock-raising, especially the latter, because both hay and water are plentiful, and the bluffs would afford excellent shelter for stock. There are several lakes of some size, especially in the southwest corner, none of which are alkaline; indeed there is neither alkaline land nor water in the whole township as far as I have seen.—*Thomas Drummond, D.T.S., 1884.*

50. The general surface of this township is undulating and rolling, broken by the valley of Stony creek, which flows through the northeast corner in a deep and wide valley with hills ranging from eighty to a hundred feet in height. North of this valley the land is very hilly, and broken by deep ravines. The soil is a good black loam overlying yellow clay and is suitable in many places for agricultural purposes. There are large bluffs of dead and living poplar scattered over the south and west sides of the township with very large patches of brush and willow covering one-half of the area. Numerous small ponds and marshes lie scattered over the surface with a few large lakes in the southern portion, in which the water is sweet and good. The grass is much more luxuriant than in the townships lying to the north of Stony creek, but there is very little good hay land to be found.—*Henry Carre, D.L.S., 1884.*

51. The surface of the township is from rolling to hilly. It is dotted all over with bluffs of poplar, many sloughs and patches of marsh. Four large lakes occur in the following sections, one in 14, one in 26 and 27, one in 31, and one in 32. The lakes in sections 14 and in 26 and 27 are much smaller than they were at the time of the original survey. These lakes have no outlet and rise and fall in wet and dry seasons the same as sloughs. The lakes in sections 31 and 32 have not changed much. They have an outlet, are fed by springs and do not vary much in height. Biggully, a permanent spring creek, flows out of the lake in section 32 through sections 32, 28, 30, 20, 17, 16, 9, 3 and 2. From section 29 it runs into section 30 where it is joined by a branch from the west and passes through a marsh from section 30 to section 29. From section 29 it runs through a valley from three-quarters to half a mile wide, formed by banks from one hundred to one hundred and fifty feet high. The

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stream passes through several stretches of muskeg, where it has no channel. The water in most of the sloughs is good; in the lakes in section 31 and 32 and in the creek it is excellent. A limited quantity of building logs, fencing and fuel is found on every section. The soil is mostly a good loam with occasional patches of clay loam on sandy and clay subsoils. It is generally second class. The southwest corner is the best part of the township. Hay is not very plentiful but a considerable quantity can be cut around sloughs and in the valley of the creek. The trail from Lloydminster to Hewitt Landing and Onion lake runs through sections 6, 7, 8, 17, 20, 21, 28, and 33. The creek is bridged where the trail crosses. A number of settlers have homesteaded and are making good progress. Northminster postoffice is on the northeast quarter of section 18. No stone is found other than scattered field stones around several sloughs and lakes and along the creek. There is no water-power that would be permanent. No minerals of economic value are found. Game is limited to badgers, coyotes, skunks, muskrats, prairie-chickens, ducks, and geese, none of which were plentiful. The weather during the survey (October) was exceptionally fine. General appearances indicate a section of country that is supplied with a good deal of rain. Vegetation is excellent, water is good and the soil is rich and fuel plentiful. These conditions make it well adapted to mixed farming where stock-raising would be the principal object. Horses, cattle, or hogs would do well, and if properly cared for the chances of failure with any would be slight.—*Wm. R. Reilly, D.L.S., 1907.*

This township presents a rough and bluff appearance, Biggully creek being a marked feature. This creek runs southeasterly from lake No. 5, in section 32, through section 29, meeting therein a branch extending across section 30 to the west, then through sections 20, 17, 16, 9 and 3, and finally passes out of the township through a swamp in the southwest quarter of section 2. The bed of this creek is very soft and only at a very few points could a crossing be made. From section 20, it runs through a valley about half a mile wide, the banks of which are rough and broken and about one hundred and fifty feet high. The township throughout is dotted with bluffs of poplar and other small brush; the poplar is the only wood of any size. The best bluffs are in sections 5, 6, 21, 27 and 28. On section 27 a good deal of dry firekilled poplar is found, which for a short time would make good fuel. In many of the bluffs there is timber of a sufficient size for fuel, fencing and rough buildings, but only in a limited quantity; no doubt there is enough to supply the wants of first settlers. The soil is generally good, being for the most part sandy or clay loam with a clay or sandy subsoil; it supports a good growth of grass and is generally second class. A few swamps occur, but they are of small extent; in some of them there is good hay. Good lakes in sections 5 and 6 are fed by springs and have not changed much; the water in lakes No. 2 and No. 5 in sections 1 and 32, and in Biggully creek is excellent. An old trail enters the township in section 6, runs north and passes out of the township in section 33; it is nearly impassable in many places and but little travelled.—*Wm. R. Reilly, D.L.S., 1884.*

The surface is rolling to hilly, most hill slopes being gradual and capable
52. of tillage. There are many lakes and sloughs, the majority being in the south half of the township. The water in all these water areas is fresh and much lower than at the time of the original survey. The lakes on the north boundary of section 9 and in the northeast quarter of section 8 have dried up very much. The lakes in sections 5 and 6 are fed by springs and have not changed much, the water in these is extra good. Small poplar bluffs and clumps of willow are dotted all over the township; the poplar is small but affords a limited supply of fencing and firewood. On sections 6 and 7, south of the lake in sections 15 and 12, are belts of poplar with timber large enough for log buildings. The soil is mostly of fair quality being sand

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and clay loams on clay and sand subsoils. Hay of good quality can be cut around nearly all sloughs and lakes but no great quantity in any one place. This is not a grain district but is well adapted to dairying, cattle and other stock-raising, in connection with general farming. A number of settlers have recently taken up homesteads and are making improvements. A trail from Lloydminster to Hewitt Landing and Onion lake runs northeasterly through the township from section 4 to section 36. There is very little stone, no minerals of economic value, and no water-powers. Game is scarce, and is limited to badgers, coyotes, skunks, muskrats, gophers, prairie-chickens, ducks and geese. The weather during the survey was extra fine for the season of the year. Grain crops in this district were damaged by frost owing to the backward spring and late sowing.—*Wm. R. Reilly, D.L.S., 1907.*

This township presents a less rugged appearance than that of the township to the south, being for the most part a rolling, bluffy country with numerous lakes, ponds and a few swamps, and dotted with clumps of poplar and willow brush, affording fuel to a very limited extent. The greatest quantity was found along the south side of lake No. 8 in section 15, some of which is large enough for rough buildings. The northwesterly part is hilly but not rough, the slopes being gradual and not unfit for cultivation. The soil is of a good quality, being mostly a clay loam and is better adapted to tillage than that of the township to the south. Mixed farming is what I would consider best suited to this part of the country. The township is abundantly supplied with ponds and lakes, in all of which the water is fresh and good. Lake No. 4, section 18, appears to be but recently formed, as timber, apparently not more than two years dead, was standing in ten feet of water. The trail from the south enters the township in section 4 and runs northeasterly to Fort Pitt; it is but little travelled. There is also a portion of an old trail running westerly across the north sections of the township, but it is traceable only in places.—*Wm. R. Reilly, D.L.S., 1884.*

Saskatchewan river enters this township in the north half of section 24 and
53. leaves it from the north half of section 1, crossing the township in almost a straight line. Two large wooded islands are formed in the river one in sections 19 and 20 about three-quarters of a mile long, and one in section 20 and 17 about half a mile long. The south bank of the river is very rough. A mile from the west boundary it extends back a mile in broken steeps rising to a height of over four hundred feet. It gradually falls towards the east to about two hundred feet above the river in section 1. The north bank is not so rough; it extends back about half a mile, rising to an average height of about two hundred feet. South of the river is very rolling or hilly. A number of lakes and sloughs are scattered over this part but are apparently much smaller than at the time of original survey. Bluffs and stretches of willow and poplar of small growth are thinly scattered over the upland and down the river bank. North of the river is a rolling bluffy country, which gradually rises to the north. Most of the northeast quarter of the township is nearly covered with scrub poplar, odd clumps of spruce six to fifteen inches in diameter, small patches of tamarack six to ten inches in diameter and heavy willow, poplar, alder and other underbrush. Alternate bluffs of poplar, patches of willow and poplar scrub, and large prairie openings occur on the remainder of the tract north of the river. Over this whole area a number of sloughs and lakes are scattered. Large lakes cover a portion of the following sections: west half sections 14, 35 and 36, northeast quarter 33, northwest quarters 31, 21 and 22. Water in this lake is strongly alkaline. Water in the majority of sloughs and lakes is good. The soil is mostly sandy loam of fair quality but the northeast corner of the township is very light. A considerable quantity of hay can be cut in the northwest quarter of the township and a limited amount in other parts. The

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township is good grazing ground and well adapted to stock-raising. Only a very few quarter-sections are fit for farming but many small patches can be cultivated. General conditions show a temperate summer climate, with plenty of rain to produce excellent grass. The autumn was exceptionally fine; the river was not frozen over for safe crossing until November 25th. A Hudson Bay company's reserve covers the most of sections 12 and 13. The telegraph line from Battleford to Onion Lake crosses sections 25 and 35. The trail from Lloydminster to Onion Lake, via Hewitt Landing, passes through the west half of sections 1, 12 and 13 and sections 24, 23, 26, 27, 28, 33 and 21. Hewitt Landing postoffice and ferry is on the northeast quarter of section 1. The postoffice and ferry take the place of Fort Pitt which has been abandoned. There are no minerals nor stone other than field and river boulders and no water-powers except what might be developed in any township on the river. Game was fairly plentiful, badgers, coyotes, muskrats, skunks, prairie-chickens and ducks were often noticed. North of the river a few jumping deer were seen, also tracks of lynx, bears, minks, and foxes.—*Wm. R. Reilly, D.L.S., 1907.*

The North Saskatchewan river crosses this township in a southeasterly direction. Its banks are from one hundred and fifty to two hundred feet high. There are a few bluffs south of the river, but north of it they become numerous with very few openings of prairie. Clumps of spruce averaging from ten to twelve inches in diameter are met with north of the river. This township is generally rough and hilly owing to the proximity of the Saskatchewan river. The soil varies from first to third-class, being generally a good sandy loam fairly well adapted to farming purposes. North of the township the soil becomes lighter, being nearly all sand. There are numerous big lakes, ponds, swamps and quagmires in this township. The water is generally fresh, except in the big lakes, where it has a little alkaline taste. Numerous cart trails going to Fort Pitt, intersect in this township.—*Elz. Boivin, D.L.S., 1886.*

This is a fractional township composed of the south halves of sections 1, 2, **54.** 3, 4, 5 and 6. It is similar in appearance to the north part of township 53, range 27, being rolling to hilly, bluffy country with sloughs, lakes, swamps and prairie openings. A large swamp runs through the south part of sections 1 and 2. The telegraph line to Onion Lake crosses the west half of section 2. The trail from Hewitt Landing to Onion Lake crosses section 5. Occasional clumps of spruce and tamarack six to twelve inches in diameter occur in sections 1 and 2, and poplar in bluffs, four to ten inches in diameter on every section. The soil is sandy loam. No minerals, stone-quarries nor water-powers occur. Game seen consisted of coyotes, badgers, skunks, muskrats, prairie-chickens and ducks.—*Wm. R. Reilly, D.L.S., 1907.*

This fractional township lies directly north adjacent to Onion Lake settlement **55.** and consequently is easily accessible by two trails running north from that place for a distance of four miles. The most northerly sections can be described as a rolling country covered with poplar bush, which averages about six inches in diameter. There are patches of large spruce and poplar more or less scattered and cut over. There are also in places areas of fifty acres of poplar and willow scrub. The remainder of the township is nearly level and covered with thin poplar bush, up to six inches in diameter, having small patches of prairie and willow scrub. The most northeasterly four sections are badly broken by the valley of Pipestone creek and its adjacent valleys. The soil in general consists of about two inches of black loam over a sand or stony clay subsoil. It is better adapted to mixed grazing than to mixed farming. There are a few muskegs but there are no hay sloughs and as a consequence very little hay. Some of the muskegs might dry up or be drained in future and will become available for cultivation. The lakes and muskegs contain good water. Economic

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minerals or stone-quarry materials are not apparent. All kinds of game are scarce. *R. H. Knight, D.L.S., 1909.*

This township is not directly accessible by a good trail. The good wagon
56. trail between Onion lake and Island lake passes through township 56, range 26. From section 28, I cut a wagon trail in a westerly direction, which, no doubt, will be of future service for getting into this township. This trail passes through sections 28, 29, and 30, township 56, range 26, and sections 25, 26, 27 and 28 of this township. The surface is gently rolling in the northern and western parts, but the southern and eastern portions are somewhat rough and broken. The whole is thickly covered with bush. Poplar up to eight inches in diameter predominates, but sections 3, 4, 5, 6, 7, 8 and 9 contain some good spruce timber. The most of this is included in a timber berth already surveyed and cut over. In other parts of the township, there are some ridges of fairly good timber, which no doubt will be of value as the country becomes settled to the south. Throughout the township, there is a thick growth of willow and hazel underbrush, which very much impeded the progress of opening the section lines. The soil in general, consists of about three inches of black loam with a hard stony subsoil. Mixed farming might be successfully carried on, but for the immediate future this land would better serve as a forest reserve for the settlements to the south. There is no hay although sloughs and muskegs are numerous. Good water is found everywhere. Economic minerals are not apparent. Moose and small game are plentiful.—*R. H. Knight, D.L.S., 1909.*

(*East outline*).—This is a fractional township, adjoining the fourth meridian, which intersects the base line on the north boundary of section 31. The surface is rolling, the ridges being covered with poplar, spruce and jackpine, while the depressions are occupied by muskegs and sloughs. The soil on the ridges is black loam to a depth of from three to six inches on a subsoil chiefly of sand, though gravel and clay occur in places. In the depressions the soil is black loam. Moose are plentiful here and indications of elk and jumping deer were also noticed. A few partridges and prairie-chickens were also seen. No water-powers, stone-quarries nor minerals were found in this township.—*Wm. Christie, D.L.S., 1909.*

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The surface of this township is gently undulating and in parts rolling and
49. unbroken by any high hills or ravines. The soil is a good black loam from eight to twelve inches in depth overlying a yellow and grey clay subsoil. Small detached bluffs of poplar from three to four inches in diameter with very large patches of brush and willow cover a considerable area of land. The water is good but not plentiful in the northern portion of the township. Towards the south it becomes more plentiful in swamps and ponds. The grass is luxuriant in the north half and there are some small patches of hay land. There are some fine sections of land in this township, well supplied with wood for fuel and fencing.—*Henry Carre, D.L.S., 1884.*

49 and 50.—This locality, the centre of which is the townsite of Lloyd-minster, is reached either from Edmonton or Battleford by trail. The trail from Battleford is very much travelled by the English colonists at present. The soil is generally a deep rich black loam averaging a foot or more in depth and is especially suitable for the growth of all kinds of cereals. The general surface is rolling prairie with a great many patches of scrub and dry poplar which will not last very long for the present settlement, and there is no green timber to replace it. Hay is scattered over the several sections in small quantities. Water is found only in the sloughs and

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is always fresh. Wells have been dug 40 and even 50 feet without advantage to the settlers. These wells showed a very hard and almost impenetrable clay throughout their whole depth. The season of 1903 was not a fair criterion of the climate of this district, for crops failed to the north at Onion lake and other places where they were a success other seasons. There are no minerals, coal nor stone-quarries. A few prairie-chickens and wild ducks were the only game seen.—*J. J. Dalton, D.T.S., 1903.*

The surface is gently undulating, broken only by a ridge of low steep hills
50. running westerly across the north half of the township. The soil consists of a deep black loam from eight to twelve inches in depth overlying a yellow clay subsoil. A few small bluffs of poplar from three to six inches in diameter are to be found along the north and west boundaries, while large patches of poplar and willow scrub cover a considerable area. The grass is good and in many places luxuriant. There is plenty of good water in the northeast portion of the township. There are a few good sections suitable for farming purposes with enough wood for fuel and fencing and furnishing excellent pasture for cattle.—*Henry Carre, D.L.S., 1884.*

This township being fractional contains but an area of 2,960.66 acres. The
51. surface is rolling to hilly prairie, interspersed with bluffs of poplar, willow and other small bush, occurring more thickly on sections 12, 13 and 24, which are less rolling than other parts of the township. In none of the bluffs is the wood fit for anything but fuel. The soil is principally a sandy loam about ten inches deep over a sandy subsoil; it supports a good growth of grass. The water in the many ponds throughout the township is fresh and good. There is a fine lake of excellent water, a small part of which lies in the northeast quarter of section 36, and extends for about a mile into the township to the north.—*Wm. R. Reilly, D.L.S., 1884.*

This township, being fractional, contains only an area of 2934.86 acres. A
52. little more than the north half is rolling prairie with scattered clumps of bush; the south part is rough and broken, containing a considerable quantity of poplar and other small brush along the east and north side of lake No. 3, in sections 12 and 13. As a rule the timber is scrubby and only fit for fuel. The soil throughout is a sandy loam; the north and south parts are of good quality, second class, while part of sections 12 and 13 is light, third-class. Water is abundant throughout the township. The north part contains small ponds, in which the water is generally good and sections 1 and 12 to the south are much broken by fine fresh water lakes, in which the water is excellent and small fish abound. Lake No. 3 in the north part of section 12 might rightly be termed the heading of Biggully creek, as the feeder of this lake is a swamp extending some distance from the north end of the lake in a northwesterly direction, connection being made with lake No. 5 in township 51, range 27, out of which Biggully creek runs.—*Wm. R. Reilly, D.L.S., 1884.*

This is a small fractional township, composed of the east three-fourths of the
54. south half of section one. The surface is rolling to hilly prairie, with small bluffs of poplar and occasional sloughs. A small lake cuts the northwest corner. The soil is sandy loam. There are no minerals, stone-quarries nor water-powers. No game was seen.—*Wm. R. Reilly, D.L.S., 1907.*

SASKATCHEWAN
FORT PITT SHEET
 WEST OF THIRD MERIDIAN

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Sectional Map.
 Six Miles to one Inch.

Revised to the 8th July, 1912



LEGEND

Trails
 Towns, unincorporated
 Railways
 As shown on the map
 Railway numbers

